

# Attachment J

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## Post-Construction Mitigation Measures

### **Sunrise Powerlink Transmission Project** Mitigation Monitoring, Compliance, and Reporting Program



California Public Utilities Commission  
and  
Bureau of Land Management  
U.S. Department of Interior

November 2009

Note: In this table, mitigation measures are denoted with Mitigation Measure preceding the measure title and Applicant Proposed Measures are denoted with APM. To facilitate tracking of the measures' requirements, some measures have been subdivided by task and/or timing. A measure that has been subdivided is identifiable by its measure number preceded by a dash, with subsequent tasks shown in parentheses, e.g., — (A-1a). A row with a measure number preceded by a dash and/or in parentheses does not contain the entire measure, only a specific task.

Several of the biological resources APMs have been updated to show changes (in underline/~~strikeout~~) that were originally incorporated into Appendix 8N of the Final EIR/EIS. These changes are included in the following table where applicable, and throughout the MMCRP.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<p><b>MITIGATION MEASURE</b></p>	<p>— B-1a: Provide restoration/compensation for impacted sensitive vegetation communities. Surface-disturbing components of the project shall be located in previously disturbed areas or where habitat quality is poor to the extent possible, and disturbance of vegetation and soils shall be minimized. Temporary construction mats may be used to minimize vegetation and soil disturbance only where deemed appropriate by the qualified biologist (see Mitigation Measure B-1c). The construction mats shall not be left on the ground for more than three weeks. Use of construction mats shall be considered a temporary impact to vegetation and shall be mitigated in accordance with this mitigation measure. If avoidance of sensitive vegetation communities is not feasible due, for example, to physical or safety constraints, the Applicant shall restore temporarily impacted areas to pre-construction conditions following construction (or emergency repairs) and shall permanently block off all public access to them, and/or shall purchase/dedicate suitable habitat for preservation to off-set permanently impacted areas. Restoration of some vegetation communities in temporarily impacted areas may not be possible if those areas are subject to vegetation management to maintain proper clearance between transmission lines and vegetation. In those instances, the mitigation shall consist of offsite acquisition and preservation of the vegetation community instead. Any area that can be preserved as intact or restored habitat, or if it contains any species (plant or animal) that require project-related compensatory mitigation will qualify as offsite mitigation lands. Restoration involves recontouring the land, replacing the topsoil (if it was collected), planting seed and/or container stock, and maintaining (i.e., weeding, replacement planting, supplemental watering, etc.) and monitoring the restored area for a period five years (or less if the restoration meets all success criteria). Restoration in ABDSP shall be maintained and monitored for a minimum of five years. The success of the restoration is usually based on how the habitat compares with similar, nearby, undisturbed habitat. Any restoration efforts would be subject to a Habitat Restoration Plan approved by the CPUC, BLM, Wildlife Agencies, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). Mitigation ratios and mitigation acreages for construction within authorized limits are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). The mitigation ratios also apply to impacts from emergency repairs. In cases where the impacts to sensitive vegetation communities occur on lands already in use as mitigation for other projects, the mitigation ratios shall be doubled, as is standard practice in San Diego County.</p>
	<p>— (B-1a) All limits of construction shall be delineated with orange construction fencing. SDG&amp;E shall coordinate with the authorized officer for the applicable federal, State, or local land owner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the land management agency. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&amp;E shall document its coordination efforts with the administering agency of the road/trail and provide this documentation to the CPUC, BLM, and all affected jurisdictions 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates. To control unauthorized use of project access roads by off-road vehicle enthusiasts, SDG&amp;E shall provide funding to land management entities responsible for areas set aside for habitat conservation to provide for off-road vehicle enforcement patrols. The responsible land management entities will formulate what funding is reasonable to control unauthorized use of project access roads.</p>

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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

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— (B-1a) Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio (5.5:1 in FTHL MA). Restoration of the unauthorized impacts shall be credited at a 1:1 ratio (i.e., mitigated by in-place habitat restoration); the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.

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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

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— (B-1a) Areas to be restored shall include all areas temporarily impacted by construction, such as tower construction sites, laydown/staging areas, temporary access and spur roads, and existing tower locations where towers are removed. Where onsite restoration is planned, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Habitat Restoration Plan, for restoring temporarily impacted sensitive vegetation communities, to be approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration). The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. This Habitat Restoration Plan must be approved in writing by the above-listed agencies prior to the initiation of any vegetation disturbing activities. Hydroseeding, drill seeding, or an otherwise proven restoration technique shall be utilized on all disturbed surfaces using a locally endemic native seed mix approved by the CPUC, Wildlife Agencies, BLM, State Parks (for ABDSP restoration), and USDA Forest Service (for National Forest land restoration).

The Habitat Restoration Plan shall incorporate Desert Bioregion Revegetation/Restoration Guidance measures for restoration of temporary impacts to desert scrub and dune habitats. These measures generally include alleviating soil compaction, returning the surface to its original contour, pitting or imprinting the surface to allow small areas where seeds and rain water can be captured, planting seedlings that have acquired the necessary root mass to survive without watering, planting seedlings in the spring with herbivory cages, broadcasting locally collected seed immediately prior to the rainy season, and covering the seeds with mulch.

The Habitat Restoration Plan shall also incorporate the measures identified in the May 25, 2006 Memorandum of Understanding among Edison Electric Institute, USDA Forest Service, BLM, USFWS, National Park Service, and the Environmental Protection Agency (Edison Electric Institute, et al., 2006) where applicable. The MOU discusses vegetation management along ROWs for electrical transmission and distribution facilities on federal lands. The major provisions of the MOU include reducing soil erosion and water quality impacts; promoting local ecotypes in revegetation projects; planting native species and protecting rare species; and reducing the introduction of non-native, invasive or noxious plant species to the ROWs. The MOU can be viewed online at [http://www.eei.org/industry\\_issues/environment/land/vegetation\\_management/EEI\\_MOU\\_FINAL\\_5-25-06.pdf](http://www.eei.org/industry_issues/environment/land/vegetation_management/EEI_MOU_FINAL_5-25-06.pdf).

The following habitat restoration requirements are not included in the MOU described above. The restoration of habitat shall be maintained and monitored for five years after installation by an experienced, licensed Habitat Restoration Contractor, or until established success criteria identified in the Restoration Plan (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met. Maintenance and monitoring for restoration in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Maintenance and monitoring shall be conducted following a prescribed schedule to assess progress and identify potential problems with the restoration. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken by an experienced, licensed Habitat Restoration Contractor during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established success criteria after the maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. For areas where habitat restoration cannot meet mitigation requirements, as determined by the Habitat Restoration Specialist in coordination with CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies, offsite purchase and dedication of habitat shall be provided at the mitigation ratios provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives) or as otherwise required by the Wildlife Agencies, ABDSP, or USDA Forest Service (supersedes the mitigation ratios in BIO-APM-1).

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Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

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— **(B-1a) Tree Mitigation.** Mitigation for loss of native trees or native tree trimming shall be provided by (1) acquiring and preserving habitat within which the trees occur and/or (2) restoring (i.e., planting) trees on land that would not be subject to vegetation clearing (either in the Applicant's ROW and/or on land acquired and preserved). Any land to be used for this mitigation shall be approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

For habitat acquisition and preservation, the mitigation ratios shall follow those in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). For example, removal of coast live oak trees (that occur in coast live oak woodland) shall require mitigation at a 3:1 ratio based on the permanent impact to the summed acreage of all individual coast live oak trees impacted. Therefore, if the total acreage of all individual coast live oak trees in coast live oak woodland impacted is 10 acres, then 30 acres of coast live oak woodland shall be acquired and preserved. For all trimmed native trees, the trees shall be monitored for a period of three years. If a trimmed tree declines or suffers mortality during that period, the tree shall be replaced in-kind (by species) at a 2:1 or 5:1 ratio as recommended by the CDFG (see below). If a tree does not decline or suffer mortality, no mitigation shall be required.

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— **(B-1a)** For restoration (planting trees), these guidelines, based on recommendations from the CDFG, shall be followed.

Native trees that are removed shall be replaced in-kind (by species) as follows.

- Trees less than five inches diameter at breast height (DBH) shall be replaced at 3:1
- Trees between five and 12 inches DBH shall be replaced at 5:1
- Trees between 12 and 36 inches shall be replaced at 10:1
- Trees greater than 36 inches shall be replaced at 20:1
- Native trees that are trimmed shall be replaced in-kind (by species) as follows.
- Trees less than 12 inches DBH shall be replaced at 2:1
- Trees greater than 12 inches DBH shall be replaced at 5:1

All restoration shall be maintained and monitored for a minimum of 10 years. The restoration shall be directed according to a Habitat Restoration Plan approved by the CPUC, BLM, State Parks (for ABDSP restoration), USDA Forest Service (for National Forest land restoration), and the Wildlife Agencies.

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— **(B-1a) Mitigation Parcels/Habitat Management Plans.** All offsite mitigation parcels shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for impacts to ABDSP), and USDA Forest Service (for alternatives with impacts to National Forest lands) and must be acquired or their acquisition must be assured before the line is energized. To demonstrate that such parcels shall be acquired, SDG&E shall submit a Habitat Acquisition Plan at least 120 days prior to any ground disturbing activities. The Plan shall be submitted to the CPUC, BLM, the Wildlife Agencies, State Parks (for impacts in ABDSP) and USDA Forest Service (for impacts on National Forest Lands) for review and approval, and shall include, but shall not be limited to: legal descriptions and maps of all parcels to be acquired; schedule that includes phasing relative to impacts; timing of conservation easement recording; initiation of habitat management activities relative to acquisition; and assurance mechanisms (e.g., performance bonds to assure adequate funding) for any parcels not actually acquired prior to vegetation disturbing activities.

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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-1a) A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired offsite mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any vegetation disturbing activities. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands)</li> <li>• Baseline biological data for all mitigation parcels</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to National Forest lands) to provide in-perpetuity management</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	All areas disturbed by construction activities.
<b>Monitoring/Reporting Action</b>	BLM and CPUC shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. CPUC/BLM biological monitor shall confirm that proposed habitat restoration mitigation plans are implemented.
<b>Effectiveness Criteria</b>	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, CDFG, State Parks (for mitigation lands in ABDSP), and USDA Forest Service (for mitigation lands on USFS land).
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>B-1k: Re-seed disturbed areas after a transmission line-caused fire.</b> Should a fire occur and be determined by the CPUC's Consumer Protection and Safety Division (CPSD) or the California Department of Forestry and Fire Protection (CAL FIRE) to be caused by the Proposed Project or a constructed alternative, the Applicant shall re-seed all natural areas — both public and private — that are burned as a result of the project-caused fire. Re-seeding shall be required for areas that have been burned due to the minimum 10-year period required for arid chaparral to establish an adequate seed bank and thereby resist vegetation type conversion. A re-seeding plan shall be developed with input from Cal Fire, the U.S. Forest Service, BLM, and CPUC, based on a native seed mix. Seeds shall be raked into the soil to avoid seed predation, and re-seeding shall be carried out once to coincide with the rainy season (October 1 through April 1) to increase the likelihood of germination success. The Applicant shall provide a written report documenting all re-seeding activities to the CPUC. The Applicant shall make a good faith effort to obtain approval to re-seed on private lands as appropriate, and documentation of this good faith effort shall be submitted to the CPUC upon request. Specific re-seeding requirements stipulated in this mitigation measure shall be subject to approval and modification by any public landowning agency.
<b>Location</b>	Areas burned as a result of a project-caused fire and that have also been burned at least once in the preceding 10-year period.

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

Monitoring/Reporting Action	CPUC/BLM shall oversee the development of re-seeding plan and shall collect written documentation of all re-seeding activities from the Applicant.
Effectiveness Criteria	Re-seeding occurs per re-seeding plan requirements.
Responsible Agency	CPUC, BLM, and USDA Forest Service
Timing	During and post construction.
Status	
Review / Approval Status	

MITIGATION MEASURE	<p>— <b>B-2a: Provide restoration/compensation for impacted jurisdictional areas.</b> Impacts to areas under the jurisdiction of the ACOE, Regional Water Boards, State Water Board, and CDFG shall be avoided to the extent feasible. Where avoidance of jurisdictional areas is not feasible (including for emergency repairs), the Applicant shall provide the necessary mitigation required as part of wetland permitting by creation/restoration/preservation of suitable jurisdictional or equivalent habitat along with adequate buffers to protect the function and values of jurisdictional area mitigation. The location(s) of the mitigation would be determined in consultation with the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation in ABDSP), USDA Forest Service (for alternatives with mitigation on National Forest lands), ACOE, Regional Water Boards, State Water Board, and CDFG as part of the wetland permitting process. It is anticipated that the sites would be in close proximity to the impacts or in the same watershed. A jurisdictional delineation and impact assessment shall be prepared based on the final alignment and final engineering plans when they are complete. Mitigation ratios would range from 1:1 up to 4:1 and would depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. The width of wetland buffers would also depend on the sensitivity of the jurisdictional habitat and on the requirements of the wetland permitting agencies. Recommended mitigation ratios for vegetation communities that generally occur in jurisdictional areas are provided in Table D.2-7 for the Proposed Project (see Impacts to Vegetation Communities and Required Mitigation tables in alternatives sections for the alternatives). It is anticipated that at least a 1:1 ratio of the mitigation would include creation of jurisdictional habitat so there would be no net loss of jurisdictional habitat. For example, permanent impacts to emergent wetland would require a 2:1 mitigation ratio. Half (or 1:1) of the mitigation acreage would have to consist of created emergent wetland in an appropriate location to be preserved, and the other half (1:1) would require acquisition and preservation of already-existing emergent wetland (or other wetland community acceptable to the permitting agencies — ACOE, Regional Water Boards, State Water Board, and CDFG). It is also anticipated that a 1:1 ratio would be required for impacts to jurisdictional non-wetland Waters of the U.S. in the form of wetland enhancement, restoration, or creation as determined in consultation with the permitting agencies. Wetland permits shall be obtained from the ACOE, Regional Water Boards, State Water Board, and CDFG prior to initiating construction in jurisdictional areas.</p> <p>— <b>(B-2a)</b> All limits of construction shall be delineated with orange construction fencing and/or silt fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. If silt fencing is used to delineate the limits of construction or as part of implementation of erosion control BMPs, the silt fencing may be left in place longer than 30 days if erosion control is still necessary. During and after construction, entrances to access roads shall be gated to prevent the unauthorized use of these roads by the general public. Signs prohibiting unauthorized use of the access roads shall be posted on these gates.</p> <p>— <b>(B-2a)</b> Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated at a 5:1 ratio, unless otherwise directed by the ACOE, Regional Water Boards, State Water Board, and CDFG: restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 (or 4.5:1 in FTHL MA) shall be acquired off site.</p>
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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-2a) The Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for restoration in ABDSP), and USDA Forest Service (for alternatives with restoration on National Forest lands). The Habitat Restoration Specialist shall prepare and implement a Wetland Mitigation Plan to be approved in writing by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP mitigation), and USDA Forest Service (for alternatives with mitigation on National Forest lands). The Applicant shall work with the above-listed agencies until a plan is approved by all. The mitigation of habitat shall be maintained and monitored for five years after installation, or until established success criteria (specified percent cover of native and non-native species, species diversity, and species composition as compared with an undisturbed reference site) are met, to assess progress and identify potential problems with the mitigation. Maintenance and monitoring in ABDSP shall be for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional planting, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the mitigation. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for ABDSP restoration), and USDA Forest Service (for alternatives with restoration on National Forest lands).</p>
	<p>— (B-2a) A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, ACOE, Regional Water Boards, State Water Board, CDFG, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) for all acquired offsite mitigation parcels. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact jurisdictional areas. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired, offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands);</li> <li>• Baseline biological data for all mitigation parcels;</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	All locations with impacts to jurisdictional areas.
<b>Monitoring/Reporting Action</b>	BLM, CPUC, and wetland permitting agencies shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans. BLM/CPUC biological monitor to confirm that proposed habitat restoration mitigation plans are implemented.
<b>Effectiveness Criteria</b>	Habitat restoration plans are implemented and meet success criteria. Long-term habitat management is provided for all mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, CDFG, ACOE, RWQCB, State Parks (for mitigation lands in ABDSP), and USDA Forest Service (for mitigation lands on USFS land).
<b>Timing</b>	Pre-, during and post construction.

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

Status	Review / Approval Status
MITIGATION MEASURE	<p>— <b>B-3a: Prepare and implement a Weed Control Plan.</b> The Applicant shall prepare and implement a comprehensive, adaptive Weed Control Plan for pre-construction and long-term invasive weed abatement. Where the Applicant owns the ROW property, the Weed Control Plan shall include specific weed abatement methods, practices and treatment timing developed in consultation with the San Diego County Agriculture Commissioner's Office and the California Invasive Plant Council (Cal-IPC), or the tribal government, as appropriate. On the ROW easement lands administered by public agencies (BLM, USDA Forest Service (for alternatives routes within Cleveland National Forest lands), Wildlife Agencies, and State Parks (ABDSP) the Weed Control Plan shall incorporate all appropriate and legal agency-stipulated regulations. The Weed Control Plan shall be submitted to the ROW land-holding governmental agencies for final authorization of weed control methods, practices, and timing prior to implementation of the Weed Control Plan on public lands. ROW easements located on private lands shall include adaptive provisions for the implementation of the Weed Control Plan. Prior to implementation, the Applicant shall work with the landowners to obtain authorization of the weed control treatment that is required. State Parks shall have review and approval authority over the Weed Control Plan for ROW within or adjacent to the boundaries of ABDSP. Developed land shall be excluded from weed control.</p> <p>— <b>(B-3a)</b> The Weed Control Plan shall include the following:</p> <ul style="list-style-type: none"> <li>• A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW (where access and permission can be secured) as well as at all ancillary facilities associated with the project for weed populations that: (1) are considered by the San Diego County Agriculture Commissioner or State Parks (for ROW within or adjacent to ABDSP) as being a priority for control and (2) aid and promote the spread of wildfires (such as cheatgrass [<i>Bromus tectorum</i>], Saharan mustard [<i>Brassica tournefortii</i>] and medusa head [<i>Taeniatherum caput-medusae</i>]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated (where access and permission can be secured) prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with the San Diego County Agriculture Commissioner's Office and Cal-IPC, or the tribal government, as appropriate.</li> </ul> <p>A pre-construction weed inventory shall also be conducted by surveying areas that will be directly impacted by the project for weed populations that are rated High or Moderate for negative ecological impact in the California Invasive Plant Inventory Database (Cal-IPC, 2006) or are weed species of concern to State Parks (for ROW within or adjacent to ABDSP). These plant species shall be treated prior to construction or at a time when treatments would be most effective based on phenology according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC and State Parks (for treatment in ROW within ABDSP).</p> <p>— <b>(B-3a)</b> Weed control treatments shall include all legally permitted chemical, manual and mechanical methods applied with the authorization of the San Diego County Agriculture Commissioner and the ROW easement land-holding agencies where appropriate. The application of herbicides shall be in compliance with all state and federal laws and regulations under the prescription of a Pest Control Advisor (PCA) and implemented by a Licensed Qualified Applicator. Where manual and/or mechanical methods are used, disposal of the plant debris will follow the regulations set by the San Diego County Agriculture Commissioner. The timing of the weed control treatment shall be determined for each plant species in consultation with the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC, or the tribal government, as appropriate, with the goal of controlling populations before they start producing seeds.</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-3a) For the lifespan of the project (i.e., as long as the project is physically present), long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows.</p> <ul style="list-style-type: none"> <li>• From the time construction begins until two years after construction is complete, annual surveying for new invasive weed populations and the monitoring of identified and treated populations shall be required in the survey areas described above. After this time, surveying for new invasive weed populations and monitoring of identified and treated populations shall be required at an interval of every two years. However, the treatment of weeds shall occur on a minimum annual basis, unless otherwise approved by the PCA, the San Diego County Agriculture Commissioner, State Parks (for treatment in ABDSP) and Cal-IPC.</li> <li>• During project construction and operation/maintenance, all seeds and straw materials shall be certified weed free, and all gravel and fill material shall be certified weed free by the San Diego County Agriculture Commissioner's Office, or the tribal government, as appropriate.</li> <li>• During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) at an offsite washing facility (e.g., a car wash or truck wash) immediately before project construction begins and prior to returning to project construction should equipment be used in a different construction area. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed at an offsite washing facility immediately before project construction begins and prior to returning to project construction should tools be used in a different construction area. In addition, vehicles, tools, and equipment shall be washed at an offsite washing facility should these vehicles, tools, and equipment have been used in an area where invasive plants have been mapped during the pre-construction weed control inventory and as directed by the biological construction monitor, prior to entering a project area free of populations of invasive plants (as determined by the pre-construction weed control inventory). Finally, vehicles, tools, and equipment used for maintenance shall be washed at an offsite washing facility immediately before each maintenance event. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill; an effort shall be made to use wash facilities that use recycled water. A written daily log shall be kept for all vehicle/equipment/tool washing that states the date, time, location, type of equipment washed, methods used, and staff present. The log shall include the signature of a responsible staff member. Logs shall be available to the CPUC, BLM, USDA Forest Service (for alternative routes within Cleveland National Forest lands), Wildlife Agencies, State Parks (for weeds in ABDSP), tribal governments (for weeds on tribal lands), and biological monitor for inspection at any time and shall be submitted to the CPUC on a monthly basis during construction and submitted annually to the CPUC during operation/maintenance.</li> </ul>
<b>Location</b>	Entire project area.
<b>Monitoring/Reporting Action</b>	BLM/CPUC biological monitor to confirm preparation and implementation of a weed control plan.
<b>Effectiveness Criteria</b>	Weed control plan prepared and successfully implemented.
<b>Responsible Agency</b>	BLM, CPUC, and ROW land-holding agencies (BLM, State Parks for ABDSP, USDA Forest Services for USFS lands).
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<p>— B-5a: <b>Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.</b> A qualified biologist shall survey for special status plants in the spring of a year with adequate rainfall prior to initiating construction activities in a given area. If a survey can not be conducted due to inadequate rainfall, then SDG&amp;E shall consult with the Wildlife Agencies, State Parks (for impacts in ABDSP), and the USFS (for impacts on National Forest lands) to determine if construction may begin in the absence of survey data and what mitigation would be required, or whether construction would not be allowed until such data is collected. A report of special status plants observed shall be prepared and submitted for approval by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies prior to activities which may impact the plant resources.</p>

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

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— (B-5a) All special status plant populations shall be staked or flagged by a qualified biologist approved by the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete.

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— (B-5a) Impacts to federal or State listed plant species shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through salvage and relocation (salvage and relocation for plants in ABDSP shall be determined in consultation with, and approval of, State Parks) via a restoration program and/or offsite acquisition and preservation of habitat containing the plant at a 2:1 ratio. Avoidance may not be feasible due to physical or safety constraints. The CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies shall decide whether the Applicant can restore rare plant populations or shall acquire habitat with rare plant populations off site (locations to be approved by the CPUC, BLM, State Parks [for activities in ABDSP], USDA Forest Service [for alternatives with activities on National Forest lands], and the Wildlife Agencies). A qualified biologist shall prepare a Restoration Plan that shall indicate where restoration would take place. The restoration plan shall also identify the goals of the restoration, responsible parties, methods of restoration implementation, maintenance and monitoring requirements, final success criteria, and contingency measures. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service (for alternatives with restoration on National Forest lands) until a plan is approved by all.

Impacts to moderately sensitive plant species (i.e., BLM Sensitive, USDA Forest Service Sensitive, CNPS List 1 and 2 species) shall first be avoided where feasible, and, where not feasible, impacts shall be compensated through reseeded (with locally collected seed stock) or relocation to temporarily disturbed areas (reseeded and relocation of plants in ABDSP shall be determined in consultation with, and approval of, State Parks). Avoidance may not be feasible due to physical or safety constraints. Mitigation Measure B-1a would also provide habitat-based mitigation for these impacts.

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— (B-5a) Where reseeded or salvage and relocation is required, the Applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Restoration Plan for reseeded or salvaging and relocating special status plant species to be approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies in writing prior to impacting the plant resources. The Applicant shall work with the above-listed agencies until a plan is approved by all. The reseeded or relocation of plants shall be maintained and monitored for five years after installation, or until established success criteria are met, to assess progress and identify potential problems with the mitigation. The reseeded or relocation of plants in ABDSP shall be maintained and monitored for a minimum of five years, even if established success criteria are met before the end of five years. Remedial action (e.g., additional seeding, weeding, erosion control, use of container stock, supplemental watering, etc.) shall be taken during the maintenance and monitoring period if necessary to ensure the success of the restoration. If the restoration fails to meet the established performance criteria after the five-year maintenance and monitoring period, maintenance and monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise approved by the CPUC, BLM, State Parks (for restoration in ABDSP), USDA Forest Service (for alternatives with restoration on National Forest lands), and the Wildlife Agencies.

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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-5a) A Habitat Management Plan for any required, offsite mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact special status plant resources. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired offsite mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) offsite mitigation parcels approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands);</li> <li>• Baseline biological data for all mitigation parcels;</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	Entire project area.
<b>Monitoring/Reporting Action</b>	BLM and CPUC shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation. BLM/CPUC biological monitor shall oversee surveys and monitoring and ensure compliance with APMs and mitigation measures, and confirm that habitat restoration plans are implemented.
<b>Effectiveness Criteria</b>	Successful avoidance or restoration/relocation of sensitive plants, purchase of appropriate mitigation lands, and provision of long-term habitat management for all mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, CDFG, State Parks (for ABDSP), and USDA Forest Service (for USFS land).
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	— B-7b: <b>Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangelwide Management Strategy.</b> Mitigation for impacts to the FTHL shall follow all applicable measures in the Flat-Tailed Horned Lizard Rangelwide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003). This mitigation includes, but is not limited to, locating impacts outside of MAs, delineating work limits, using existing roads, biological monitoring, and worker education.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-7b) According to the Flat-Tailed Horned Lizard Rangewide Management Strategy (Flat-Tailed Horned Lizard Interagency Coordinating Committee, 2003), compensation for FTHL habitat impacts could involve purchase of FTHL habitat and/or monetary compensation as determined by the Flat-Tailed Horned Lizard Interagency Coordinating Committee. Impacts shall be mitigated at a 1:1 ratio for habitat outside a MA. Furthermore, mitigation inside a MA shall be at a 3.5:1 ratio for temporary impacts (2.5:1 for disturbed habitat, developed land, or agriculture) and a 5.5:1 ratio for permanent impacts (4.5:1 for disturbed habitat, developed land, or agriculture). For the Proposed Project, the required mitigation for FTHL impacts (if offsite acquisition is the method of compensation) is 403.48 acres. On-site restoration requirements for the Project would be 232.84 acres. Any FTHL habitat acquired shall be approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP)</p>
	<p>— (B-7b) A Habitat Management Plan shall be prepared by a biologist approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) for all acquired FTHL habitat. The Habitat Management Plan must be approved in writing by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the FTHL or its habitat. The Applicant shall work with the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired FTHL habitat. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) FTHL habitat approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP);</li> <li>• Baseline biological data for all acquired FTHL habitat;</li> <li>• Designation of a land management entity approved by the Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to Flat-Tailed Horned Lizard Interagency Coordinating Committee, CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).</li> </ul>
<b>Location</b>	FTHL MAs and where potential FTHL habitat occurs.
<b>Monitoring/Reporting Action</b>	BLM and CPUC shall ensure that required purchase of mitigation land and provision of long-term management occurs. BLM/CPUC biological monitor shall ensure that applicable measures in the FTHL Rangewide Management Strategy are implemented.
<b>Effectiveness Criteria</b>	Direct impacts to the flat-tailed horned lizard are minimized. Compensatory mitigation for impacts to FTHL is implemented, including purchase of habitat and provision of long-term management for mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, and Flat-Tailed Horned Lizard Interagency Coordinating Committee.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p>— <b>B-7c: Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.</b> With regard to timing of activities, construction and maintenance activities (including the use of helicopters) in bighorn sheep critical habitat shall be limited to outside the lambing season and the period of greatest water need, or a minimum ceiling of 1,500 feet for helicopter flights shall be maintained. The lambing season is January 1 through June 30. The period of greatest water need is May through September. Construction and maintenance activities in PBS critical habitat may occur during the lambing season and/or period of greatest water need if prior approval is obtained from the Wildlife Agencies.</p> <hr/> <p>— <b>(B-7c)</b> To help reconnect PBS subpopulations and at least partially offset impacts to the overall population of PBS caused by the project, the Applicant shall:</p> <ul style="list-style-type: none"> <li>• fund the design and construction of an overpass (for sheep) or tunnel (for vehicles) to facilitate PBS movement across a highway at a location determined by the USFWS (in coordination with State Parks and CDFG. Tunnel or overpass design must be approved by the Wildlife Agencies.</li> <li>• fund removal of tamarisk and fences for the life of the project, and install and maintain water sources at locations determined by the USFWS (in coordination with State Parks and CDFG)</li> <li>• fund a minimum 10-year-long program to monitor the effects of the project on PBS behavior, movements, and dispersal in the project corridor (ten years is needed to measure the influence of the project while factoring in rainfall cycles, vegetative productivity, and drought). This program would be implemented by the Wildlife Agencies and State Parks following construction.</li> </ul> <hr/> <p>— <b>(B-7c)</b> Furthermore, the Applicant shall provide compensation for direct loss of critical habitat at a 5:1 ratio for permanent impacts and at a 3:1 ratio (including a combination of onsite restoration and offsite purchase) for temporary impacts with PBS critical habitat or other habitat acceptable to the Wildlife Agencies, BLM, and State Parks (for critical habitat in ABDSP). Impacts to PBS critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred. For the Proposed Project, the required mitigation for PBS impacts includes offsite purchase of 525.7 acres and onsite restoration of 111.81 acres. The determination of impact acreage shall be based on the definition of critical habitat in effect as of the time of publication of the Final EIR/EIS.</p> <hr/> <p>— <b>(B-7c)</b> A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and State Parks for all acquired PBS habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) PBS or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired PBS habitat. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) PBS habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)</li> <li>• Baseline biological data for all acquired PBS habitat</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity)</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).</li> </ul> <hr/> <p><b>Location</b> Where bighorn sheep or designated bighorn sheep critical habitat occur.</p> <hr/> <p><b>Monitoring/Reporting Action</b> BLM/CPUC biological monitor shall ensure compliance with APMs and bighorn sheep impact minimization measures. BLM and CPUC shall ensure that funding is provided for bighorn sheep studies and crossing mitigation; and that habitat acquisition and long-term management of mitigation sites is implemented.</p>
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Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

Effectiveness Criteria	Successful avoidance/minimization of bighorn sheep impacts, and implementation of funding for studies and a wildlife crossing, habitat acquisition and long-term management for mitigation parcels.
Responsible Agency	BLM, CPUC, USFWS, CDFG, and State Parks.
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p>— <b>B-7d: Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/compensation strategies.</b> A survey shall be conducted within 30 days prior to the initiation of construction by a qualified biologist to determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond. In addition, the burrowing owl shall be looked for opportunistically as part of other surveys and monitoring required during project construction. If the burrowing owl is absent, then no mitigation is required.</p> <p>— <b>(B-7d)</b> If the burrowing owl is present, no disturbance shall occur within 50 meters (approximately 160 ft) of occupied burrows from September 1 through January 31 or within 75 meters (approximately 250 ft) of occupied burrows from February 1 through August 31 (CDFG, 1995).</p> <p>— <b>(B-7d)</b> During construction, any pipe or similar construction material that is stored on site for one or more nights shall be inspected for burrowing owls by a qualified biologist before the material is moved, buried, or capped</p> <p>— <b>(B-7d)</b> Passive relocation of owls shall be implemented prior to construction only at the direction of the CDFG and only if the above-described occupied burrow disturbance absolutely cannot be avoided (e.g., due to physical or safety constraints). Relocation of owls shall only be implemented during the non-breeding season (September 1 through January 31; CDFG, 1995). Passive relocation is defined as encouraging owls to move from occupied burrows to alternate natural or artificial burrows that are beyond 50 meters from the impact zone and that are within or contiguous to a minimum of 6.5 acres of preserved (or acquired and preserved if not already preserved) foraging habitat for each relocated owl (single owl or owl pair). Passive relocation is accomplished by first creating two artificial burrows in contiguous, preserved foraging habitat (if no natural burrows exist) for each occupied burrow that would be impacted; and second, installing one-way doors on occupied burrow entrances so owls can leave the burrow but not re-enter it. Following passive relocation, the area of impact and the preserved foraging habitat with alternate burrows are surveyed daily for one week to confirm owl use of alternate burrows before excavation of burrows in the impact zone. All passive relocation shall be conducted by a biologist approved by the CDFG. If the alternate burrows are not used by the relocated owls, then the Applicant shall work with the CDFG to provide alternate mitigation for burrowing owls. If the alternate burrows are used, no other mitigation shall be required.</p> <p>If it is not possible to preserve contiguous habitat on which to provide alternate burrows (e.g., on private land), and occupied owl burrows would be directly impacted, then the owls shall be passively relocated without the creation of alternate burrows prior to construction (relocation should only be implemented during the non-breeding season [September 1 through January 31]). The loss of occupied owl habitat shall be mitigated by acquiring and preserving other occupied habitat elsewhere (as explained below) per the Staff Report on Burrowing Owl Mitigation (CDFG, 1995) and the Burrowing Owl Survey Protocol and Mitigation Guidelines (The Burrowing Owl Consortium, 1993), or as otherwise determined in consultation with the CDFG.</p> <p>— <b>(B-7d)</b> Impacted occupied habitat shall be mitigated by 1) acquiring and preserving occupied habitat at a rate of 1.5 times 6.5 acres (or 9.75 acres) per pair or single bird impacted, or 2) acquiring and preserving unoccupied habitat contiguous with currently occupied habitat at a rate of two times 6.5 acres (or 13 acres) per pair or single bird impacted, or 3) acquiring and preserving suitable unoccupied habitat at a rate of three times 6.5 acres (or 19.5 acres) per pair or single bird impacted. All acquired habitat shall be acceptable to the CDFG and shall be protected and managed for the burrowing owl in perpetuity.</p> <p>— <b>(B-7d)</b> The survey required within 30 days prior to the initiation of construction will determine the presence or absence of the burrowing owl in the construction zone plus 250 feet beyond and whether or not the mitigation needs to be revised.</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<ul style="list-style-type: none"> <li>— (B-7d) A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, CDFG, and State Parks (for land in ABDSP) for all acquired burrowing owl habitat. The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and State Parks (for land in ABDSP) prior to the initiation of any activities which may impact (directly or indirectly) the burrowing owl or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and State Parks until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired burrowing owl habitat. The Habitat Management Plan shall include, but shall not be limited to: <ul style="list-style-type: none"> <li>— Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) burrowing owl habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP);</li> <li>— Baseline biological data for all acquired burrowing owl habitat;</li> <li>— Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP) to provide in-perpetuity management;</li> <li>— A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>— Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>— Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP).</li> </ul> </li> </ul>
<b>Location</b>	Where occupied burrowing owl habitat occurs.
<b>Monitoring/Reporting Action</b>	BLM/CPUC biological monitor shall oversee surveys and monitoring and ensure compliance with APMs and mitigation measures. If necessary, BLM and CPUC shall approve habitat acquisition plans, and long-term habitat management plans, and ensure their implementation.
<b>Effectiveness Criteria</b>	Avoidance of occupied burrows and surrounding foraging area, successful passive relocation, and/or replacement of occupied habitat that is managed in perpetuity.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, and CDFG.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<ul style="list-style-type: none"> <li>— <b>B-7e: Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.</b> All grading or brushing taking place within riparian habitats of the least Bell's vireo or southwestern willow flycatcher during construction shall be conducted from September 16 (October 1 in ABDSP) through March 14, which is outside the least Bell's vireo and southwestern willow flycatcher breeding seasons.</li> <li>— (B-7e) When conducting all other construction activities during the breeding season of March 15 through September 15 (September 30 in ABDSP) within 500 feet (USFWS, 2007b) of habitat in which least Bell's vireos and/or southwestern willow flycatchers are known to occur or have potential to occur, a biologist permitted by the USFWS shall survey for least Bell's vireos and southwestern willow flycatchers within 10 calendar days prior to initiating activities in an area. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities.</li> <li>— (B-7e) If least Bell's vireos or southwestern willow flycatchers are present, a permitted biologist shall survey for nesting vireos and flycatchers approximately once per week within 500 feet of the construction area (USFWS, 2007b), for the duration of the activity in that area during the breeding season.</li> </ul>

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

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— (B-7e) If/when an active nest is located, a 300-foot no-construction buffer zone (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. No construction shall take place within this buffer until the nest is no longer active unless there are physical or safety constraints. If construction must take place within the buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied vireo/flycatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies, State Parks (for activities in ABDSP), and USDA Forest Service (for activities on National Forest lands) to devise methods to reduce the noise and/or disturbance. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting birds and the activities, and working in other areas until the young have fledged. The permitted biologist shall monitor the nest daily until either activities are no longer within 300 feet of the nest, or the fledglings become independent of their nest.

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— (B-7e) Mitigation for the loss of least Bell's vireo- or southwestern willow flycatcher-occupied habitat (or designated critical habitat for the flycatcher) shall be implemented as follows. Permanent impacts to occupied habitat and/or designated critical habitat shall include offsite acquisition and preservation of occupied habitat or designated critical habitat at a 3:1 ratio. Temporary impacts to occupied habitat or designated critical habitat shall include 1:1 onsite restoration and 2:1 offsite acquisition and preservation of occupied habitat and/or designated critical habitat. Impacts to least Bell's vireo or southwestern willow flycatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred.

If a USFWS protocol, pre-construction survey, conducted in an area where presence of the vireo or flycatcher was assumed in this analysis (see Appendix 8B) determines that the species is absent, then the mitigation shall be reduced accordingly. Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).

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**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (B-7e) A Habitat Management Plan for any required, offsite mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the least Bell's vireo or southwestern willow flycatcher or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, State Parks, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired vireo or flycatcher habitat. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) least Bell's vireo or southwestern willow flycatcher habitat approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands);</li> <li>• Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat;</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, State Parks (for mitigation parcels to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	Areas where the vireo or flycatcher occur or have potential to occur.
<b>Monitoring/Reporting Action</b>	BLM/CPUC biological monitor shall oversee surveys and ensure compliance with APMs and avoidance/minimization/mitigation measures. BLM and CPUC shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation.
<b>Effectiveness Criteria</b>	Impacts to nesting vireos and flycatchers are avoided/minimized/mitigated. Habitat restoration plans are implemented and meet success criteria, and long-term habitat management is provided for all mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, and CDFG.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>B-7h: Implement appropriate avoidance/minimization strategies for eagle nests.</b> No construction or maintenance activities shall occur within 4,000 feet of an eagle nest during the eagle breeding season (December through June).
<b>Location</b>	Within 4,000 feet of eagle nests
<b>Monitoring/Reporting Action</b>	BLM/CPUC biological monitor shall ensure compliance with restrictions before and during construction. A qualified biologist shall ensure compliance during maintenance.
<b>Effectiveness Criteria</b>	Successful avoidance of indirect impacts to eagle nests.
<b>Responsible Agency</b>	BLM and CPUC.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

MITIGATION MEASURE	<p>— B-7j: Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies. A pre-construction, USFWS protocol survey shall be conducted for the toad in the construction zone (by a biologist permitted by the USFWS to handle the toad) where absence of the species has not been proven to conclusively define the impacts to occupied habitat. In the absence of this survey data, the mitigation acreages required below shall stand. Where the pre-construction survey determines the species is absent, the mitigation shall be reduced accordingly.</p>
	<p>(— B-7j) The removal of toad riparian breeding habitat shall occur from October through December to minimize potential impacts to breeding adults (including potential sedimentation impacts to toad eggs) and dispersing juveniles.</p>
	<p>(— B-7j) Where the toad is present (or assumed to be present if no pre-construction survey is conducted), the construction zone shall be fenced with exclusion fencing to prevent toad access to it. The fencing shall be a silt-screen type barrier comprised of a minimum 24-inch high fence with the remainder (minimum 12 inches) anchored firmly against the ground. The fence may be buried if necessary to exclude toad access. The fence locations shall be identified by a USFWS permitted biologist and adjusted as necessary. Exclusion fencing shall be monitored daily by a qualified biologist (see Mitigation Measure B-1c) and maintained in its original condition by construction personnel for the entire length of the construction period in toad habitat.</p> <p>Pre- and post-exclusion fencing surveys within the construction zone shall be conducted for arroyo toads by a biologist permitted by the USFWS to handle the toad. Prior to construction commencement, a minimum of three surveys shall be conducted by this biologist following installation of the fencing and prior to construction activities. One of these clearance surveys must take place no more than 24 hours prior to activity commencement. These surveys shall be conducted during appropriate climatic conditions and during the appropriate time of day or night to maximize the likelihood of encountering arroyo toads. If conditions are not appropriate for arroyo toad movement during surveys, the biologist may attempt to elicit a response from the toads during nights (i.e., at least one hour after sunset), provided that temperatures are above 50°F, by spraying the project area with water to simulate a rain event. After the three clearance surveys outlined above have been completed, daily surveys shall be conducted each morning prior to the continuation of construction or maintenance activity. Any toads found shall be relocated to appropriate similar habitat outside project impact areas.</p>
	<p>(— B-7j) Mitigation for the loss of arroyo toad-occupied habitat shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include offsite acquisition and preservation of occupied arroyo toad breeding habitat at a 3:1 ratio. Permanent impacts to occupied, upland burrowing habitat shall include offsite acquisition and preservation of occupied, upland burrowing habitat at a 2:1 ratio. Temporary impacts to occupied breeding habitat shall include 1:1 onsite restoration and 2:1 offsite acquisition and preservation of occupied breeding habitat. Temporary impacts to occupied, upland burrowing habitat shall include 1:1 onsite restoration and 1:1 offsite acquisition and preservation of occupied, upland burrowing habitat. Any acquired arroyo toad habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>(— B-7j) A Habitat Management Plan for any required, offsite mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the arroyo toad or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired arroyo toad habitat. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) arroyo toad habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands);</li> <li>• Baseline biological data for all arroyo toad habitat;</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	Areas where the arroyo toad occurs or has potential to occur.
<b>Monitoring/Reporting Action</b>	A qualified biologist shall oversee surveys and ensure compliance with APMs and avoidance/minimization/mitigation measures. BLM and CPUC shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation.
<b>Effectiveness Criteria</b>	Impacts to arroyo toads are avoided/minimized/mitigated. Habitat restoration plans are implemented and meet success criteria, and long-term habitat management is provided for all mitigation sites.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, CDFG, State parks (for ABDSP) and USDA Forest Services (for USFS lands).
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<p>— B-7i: <b>Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.</b> All brushing or grading taking place within occupied habitat of the coastal California gnatcatcher (defined as within 500 feet of any gnatcatcher sightings [USFWS, 2007b]) during construction shall be conducted from September 1 through February 14, which is outside the coastal California gnatcatcher breeding season.</p> <p>(— B-7i) When conducting all other construction activities during the coastal California gnatcatcher breeding season of February 15 through August 30, within habitat in which coastal California gnatcatchers are known to occur or have potential to occur, the following avoidance measures shall apply.</p> <p>A USFWS permitted biologist shall survey for coastal California gnatcatchers within 10 calendar days prior to initiating activities in an area. The results of the survey shall be submitted to the Wildlife Agencies for review and approval prior to initiating any construction activities. If coastal California gnatcatchers are present, but not nesting, a USFWS permitted biologist shall survey for nesting coastal California gnatcatchers approximately once per week within 500 feet of the construction area for the duration of the activity in that area during the breeding season.</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>(— B-7I) If/when an active nest is located, a 300-foot no-construction buffer (USFWS, 2007b) shall be established around each nest site; however, there may be a reduction of this buffer zone depending on site-specific conditions or the existing ambient level of activity. The Applicant shall contact Wildlife Agencies to determine the appropriate buffer zone. To the extent feasible, no construction shall take place within this buffer until the nest is no longer active. However, if construction must take place within the 300-foot buffer, a qualified acoustician shall monitor noise as construction approaches the edge of the occupied gnatcatcher habitat as directed by the permitted biologist. If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the activities in general are disturbing the nesting activities, the biologist shall have the authority to halt construction and shall consult with the Wildlife Agencies to devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nesting coastal California gnatcatchers and the activities, and working in other areas until the young have fledged.</p>
	<p>(— B-7I) Mitigation for the loss of coastal California gnatcatcher-occupied habitat shall be implemented as follows. Permanent impacts to occupied habitat shall include offsite acquisition and preservation of occupied habitat at a 2:1 ratio. Temporary impacts to occupied habitat shall be mitigated at a 2:1 ratio and shall include 1:1 onsite restoration and 1:1 offsite acquisition and preservation of occupied habitat.</p> <p>Mitigation for the loss of unoccupied designated critical habitat for the gnatcatcher shall be implemented as follows. Permanent impacts to unoccupied designated critical habitat shall include offsite acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 onsite restoration. Impacts to coastal California gnatcatcher critical habitat must be mitigated within the same Critical Habitat Unit where the impacts occurred. Any acquired coastal California gnatcatcher habitat shall be approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).</p>
	<p>(— B-7I) A Habitat Management Plan for any required, offsite mitigation shall be prepared by a biologist approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands). The Habitat Management Plan must be approved in writing by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) prior to the initiation of any activities which may impact (directly or indirectly) the coastal California gnatcatcher or its habitat. The Applicant shall work with the CPUC, BLM, Wildlife Agencies, and USDA Forest Service until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired coastal California gnatcatcher. The Habitat Management Plan shall include, but shall not be limited to:</p> <ul style="list-style-type: none"> <li>• Legal descriptions of all acquired or assured (as defined in Mitigation Measure B-1a) coastal California gnatcatcher habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands);</li> <li>• Baseline biological data for all coastal California gnatcatcher habitat;</li> <li>• Designation of a land management entity approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands) to provide in-perpetuity management;</li> <li>• A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;</li> <li>• Designation of responsible parties and their roles (e.g., provision of endowment by the Applicant to fund the Habitat Management Plan and implementation of the Habitat Management Plan by the designated land management entity); and</li> <li>• Management specifications including, but not limited to, regular biological surveys to compare with baseline; exotic, non-native species control; fence/sign replacement or repair, public education; trash removal; and annual reports to CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands).</li> </ul>
<b>Location</b>	Occupied gnatcatcher habitat.
<b>Monitoring/Reporting Action</b>	A qualified biologist shall oversee surveys and ensure compliance with APMs and avoidance/minimization/mitigation measures. BLM and CPUC shall approve habitat restoration plans, habitat acquisition plans, and long-term habitat management plans, and ensure their implementation.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

Effectiveness Criteria	Impacts to coastal California gnatcatchers are avoided/minimized/mitigated. Habitat restoration plans are implemented and meet success criteria, and long-term habitat management is provided for all mitigation sites.
Responsible Agency	BLM, CPUC, USFWS, CDFG, State parks (for ABDSP) and USDA Forest Services (for USFS lands).
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p>— <b>B-10a: Utilize collision-reducing techniques in installation of transmission lines.</b> The Applicant shall install the transmission lines utilizing Avian Power Line Interaction Committee standards for collision-reducing techniques as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994" (APLIC, 1994) as follows.</p> <ul style="list-style-type: none"> <li>• Placement of towers and lines shall not be located above existing towers and lines, topographic features, or tree lines to the maximum extent practicable. Power lines should be clustered in the vertical and horizontal planes aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns to the maximum degree feasible.</li> <li>• Additionally, overhead lines that are located in highly utilized avian flight paths shall be marked utilizing fixed mount Firefly Flapper/Diverter, swan flight diverter coils, or other diversion devices, if proven more effective, as to be visible to birds and to reduce avian collision with power lines.</li> </ul> <p>— <b>(B-10a)</b> Where such markers are installed, the Applicant shall fund a study to determine the effectiveness of the markers as a collision prevention measure since there are few, if any, studies that show if such markers work, especially on transmission lines (CEC, 2007). The Applicant shall develop a draft study protocol and submit it to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review. The Applicant shall continue to work with these agencies until approval of a final study protocol is obtained. If the study shows the markers to be ineffective, the Applicant shall coordinate with the Wildlife Agencies and State Parks (for markers in ABDSP) to develop alternate collision protection measures.</p> <p>— <b>(B-10a)</b> The Applicant shall implement an avian reporting system for documenting bird mortalities to help identify problem areas. The reporting system shall follow the format in Appendix C of "Suggested Practices for Avian Protection On Power Lines: The State of the Art in 2006" (APLIC, 2006) or a similar format. The Applicant shall submit a draft reporting protocol and reporting system to the Wildlife Agencies and State Parks, as well as to CPUC and BLM, for review and approval. The Applicant shall continue to work with these agencies until approval of a final reporting protocol and reporting system is obtained. The Applicant shall develop and implement methods to reduce mortalities in identified problem areas. The methods shall be approved by the Wildlife Agencies, State Parks (for problem areas in ABDSP), CPUC, and BLM prior to implementation. Bird mortality shall continue to be documented in the problem areas per the avian reporting system to determine the effectiveness of the mortality reduction methods and to determine if new methods need to be developed.</p>
Location	Highly utilized avian flight paths
Monitoring/Reporting Action	BLM/CPUC biological monitor shall ensure installation of markers. BLM and CPUC shall ensure that the Applicant funds and implements a study to document bird mortalities.
Effectiveness Criteria	Markers installed, bird mortality study implemented, and corrective measures taken.
Responsible Agency	CPUC, BLM, State Parks (for ABDSP), USFWS and CDFG
Timing	During and post construction.
Status	
Review / Approval Status	

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

MITIGATION MEASURE	<b>B-11a: Prepare and implement a Raven Control Plan.</b> The Applicant shall prepare and implement a Raven Control Plan where it occurs in FTHL habitat inside and outside FTHL MAs. The raven control plan shall include the use of raven perching/nesting deterrents (such as those manufactured by Prommel Enterprises, Inc. [www.ZENAdesign.com], Mission Environmental [www.missionenviro.co.za], or Kaddas Enterprises, Inc. [www.kaddas.com] and/or shall describe the procedure for obtaining a permit from the USFWS Law Enforcement Division to legally remove ravens. The plan shall identify the purpose of conducting raven control; provide training in how to identify raven nests and how to determine whether a nest belongs to a raven or a raptor species; describe the seasonal limitations on disturbing nesting raptors; and describe procedures for documenting the activities on an annual basis. The Applicant shall obtain approval of this plan from the USFWS prior to the start of construction. The Applicant shall work with the USFWS until approval of a plan is obtained.
Location	FTHL habitat inside and outside FTHL MAs, and where desert tortoise has potential to occur, outside ABDSP.
Monitoring/Reporting Action	BLM/CPUC biological monitor shall verify that SDG&E submitted a raven control plan and received approval from USFWS prior to construction, and that the plan is implemented after construction.
Effectiveness Criteria	A raven control plan is submitted by SDG&E, approved by USFWS, and implemented.
Responsible Agency	BLM, CPUC, and USFWS Law Enforcement Division.
Timing	Pre- and post construction.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p>— <b>B-12a: Conduct maintenance activities outside the general avian breeding season.</b> The Applicant shall educate all maintenance workers about the sensitivity of biological resources associated with the project and the necessity to avoid unauthorized impacts to them.</p> <p>— <b>(B-12a)</b>In areas not cleared of vegetation in the prior two years, all vegetation clearing, except tree trimming or removal, shall take place between September 16 and February 14 (i.e., outside of the general avian breeding season of February 15 through September 15). Tree trimming or removal shall only take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).</p> <p>Other maintenance activities shall occur outside the general avian breeding season where feasible. For other maintenance activities that cannot occur outside the above-listed breeding seasons, a qualified biologist shall work with a qualified acoustician to determine if a maintenance activity would meet or exceed the 60 dB(A) Leq hourly noise threshold where nesting territories of the coastal California gnatcatcher, least Bell's vireo, southwestern willow flycatcher, and burrowing owl occur. If the noise threshold would not be met or exceeded at the edge of their nesting territories, then maintenance may proceed. If the noise threshold would be met or exceeded at the edge of their nesting territories, pre-maintenance surveys for nests of these species shall be conducted by a qualified biologist (USFWS permitted biologist for gnatcatcher, vireo, and flycatcher) within 300 feet of the maintenance area no more than seven days prior to initiation of maintenance that would occur between February 15 and August 30 for the gnatcatcher, March 15 and September 15 for the vireo, April 15 and September 15 for the flycatcher, and February 1 and August 31 for the burrowing owl. If active nests are found, work may proceed provided that methods, determined by the qualified acoustician to be effective, are implemented to reduce noise below the threshold. These methods include, but are not limited to, turning off vehicle engines and other equipment whenever possible and/or installing a protective noise barrier between a nesting territory and maintenance activities. If the qualified acoustician determines that no methods would reduce noise to below the threshold, maintenance shall be deferred until the nestlings have fledged as determined the qualified biologist. Where noise-reducing methods are employed, active nests shall be monitored by the qualified biologist on a weekly basis until maintenance is complete or until the nestlings fledge, whichever comes first. The qualified biologist shall be responsible for documenting the results of the pre-maintenance nest surveys and the nest monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for maintenance in ABDSP), and USDA Forest Service (for alternatives with maintenance on National Forest lands).</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	— <b>(B-12a) Animal Burrows/Dens.</b> If any animal burrows or dens are identified during the pre-maintenance surveys for active bird nests, soil in a brush-clearing area shall be sufficiently dry before brush clearing to prevent damage to burrows or dens. At any time of year where maintenance would occur in occupied SKR habitat, all equipment and vehicles shall remain on existing access roads/staging areas (e.g., they shall not pull off the shoulder) to prevent the crushing of SKR burrows.
<b>Location</b>	Entire project area.
<b>Monitoring/Reporting Action</b>	A qualified biologist shall conduct surveys and monitoring, and ensure compliance with APMs and the mitigation.
<b>Effectiveness Criteria</b>	Successful avoidance/minimization of impacts to nesting birds and prevention of damage to burrows or dens.
<b>Responsible Agency</b>	BLM, CPUC, USFWS, CDFG, state parks (for ABDSP) and USDA Forest Service (for USFS land).
<b>Timing</b>	Post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>B-12b: Conduct maintenance when arroyo toads are least active.</b> To avoid impacts to arroyo toads during project maintenance (specifically the use and maintenance of access roads within 2 kilometers of occupied toad habitat), use and maintenance of these access roads shall only occur between two hours after sunrise until two hours before sunset.
<b>Location</b>	Access roads where occupied habitat (or potential habitat where absence has not been established) occurs.
<b>Monitoring/Reporting Action</b>	A qualified biologist shall ensure compliance with construction time restrictions.
<b>Effectiveness Criteria</b>	Avoidance of impacts to arroyo toads on access roads
<b>Responsible Agency</b>	BLM, CPUC
<b>Timing</b>	Post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>B-12c: Maintain access roads and clear vegetation in Quino checkerspot butterfly habitat.</b> If access roads in QCB-occupied or potentially occupied habitat (see Impact B-7J and Mitigation Measure B-7i) are maintained (i.e., egraded) and vegetation around structures is cleared at least once every two years, then no additional mitigation shall be required for this ongoing maintenance. If more than two years pass without egrading or clearing, then the maintenance shall be considered a new impact to QCB habitat and shall be mitigated as prescribed in Mitigation Measure B-7i (i.e., protocol pre-maintenance survey, biological monitoring, and avoidance or mitigation).
<b>Location</b>	Access roads in occupied or potential occupied habitat.
<b>Monitoring/Reporting Action</b>	A qualified biologist shall provide monitoring to ensure compliance.
<b>Effectiveness Criteria</b>	Avoidance or mitigation of impacts to QCB
<b>Responsible Agency</b>	BLM, CPUC
<b>Timing</b>	Post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

BIO-APM-5	To the extent feasible, access roads would be built at right angles to the streambeds and washes; where not feasible for access roads to cross at right angles, SDG&E would limit roads constructed parallel to streambeds or washes to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in a manner that minimizes potential adverse impacts on “waters of the U.S.” or waters of the State. Streambed crossings and roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. Culverts would be installed where needed for right angle crossings, but rock crossings would be utilized across most right angle drainage crossings. All construction and maintenance activities would be conducted in a manner that would minimize disturbance to vegetation, drainage channels and stream banks (e.g., structures would not be located within a stream channel, construction activities would avoid sensitive features). <del>Prior to construction in streambeds and washes, SDG&amp;E would perform a pre-activity survey, or more as appropriate, to determine the presence/absence of endangered riparian species. However, this survey would not replace the need for SDG&amp;E to perform detailed on-the-ground surveys as otherwise required by the BIO-APM-1.</del> (SDG&E)
Location	Entire project area.
Timing	During and post construction.
Status	
Review / Approval Status	
BIO-APM-6	In the construction, operation, and maintenance of the project, SDG&E would comply with all applicable environmental laws and regulations, including, without limitation, those regulating and protecting wildlife and its habitat. (SDG&E)
Location	Entire project area.
Timing	During and post construction.
Status	
Review / Approval Status	
BIO-APM-9	Brush clearing around any Project facilities (e.g., structures, substations) for fire protection, visual inspection or Project surveying, in areas which have been previously cleared or maintained within a two-year or shorter period shall not require a pre-activity survey. In areas not cleared or maintained within a two-year period, brush clearing shall not be conducted during the breeding season ( <del>March through August</del> ) without a pre-activity survey for vegetation containing active nests, burrows, or dens. <del>The pre-activity survey performed by the onsite biological resource monitor would make sure that the vegetation to be cleared contains no active migratory bird nests, burrows, or active dens prior to clearing. If occupied migratory bird nests are present, fire protection or visual inspection brush clearing work would be avoided until after the nesting season, or until the nest becomes inactive. If no nests are observed, clearing may proceed. Where burrows or dens are identified in the reconnaissance level survey, soil in the brush clearing area would be sufficiently dry before clearing activities occur to prevent mechanical damage to burrows that may be present.</del> (SDG&E)
Location	Entire project area.
Timing	Post construction.
Status	
Review / Approval Status	
BIO-APM-10	No wildlife, including rattlesnakes, may be harmed except to protect life and limb. Firearms shall be prohibited in all project areas except for those used by security personnel. (SDG&E)
Location	Entire project area.
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
BIO-APM-11	Feeding of wildlife is not allowed. (SDG&E)
Location	Entire project area.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
BIO-APM-12	Project personnel are not allowed to bring pets to any project area in order to minimize harassment or killing of wildlife and to prevent the introduction of destructive animal diseases to native wildlife populations. (SDG&E)
Location	Entire project area.
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
BIO-APM-13	Plant or wildlife species may not be collected for pets or any other reason. (SDG&E)
Location	Entire project area.
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
BIO-APM-14	<del>All steep-walled trenches or excavations used during construction shall be inspected twice daily (early morning and evening) to protect against wildlife entrapment. If wildlife is located in the trench or excavation, the onsite biological resource monitor shall be called immediately to remove them if they cannot escape unimpeded. The onsite biological resource monitor would make required contacts with the USFWS and CDFG resource personnel and obtain verbal approval prior to removing any entrapped wildlife.</del> If the biological resource monitor is not qualified to remove the entrapped wildlife, a recognized wildlife rescue agency (such as Project Wildlife) may be employed to remove the wildlife and transport them safely to other suitable habitats. (SDG&E)
Location	Entire project area.
Timing	During and post construction.
Status	
Review / Approval Status	
BIO-APM-15	Emergency repairs may be required during the construction and maintenance of the project to address situations (e.g., downed lines, slides, slumps, major subsidence, etc.) that potentially or immediately threaten the integrity of the project facilities. During emergency repairs the APMs shall be followed to the fullest extent practicable. Once the emergency has been abated, any unavoidable environmental damage would be reported to the project biological construction monitor, who would promptly submit a written report of such impacts to the USFWS and CDFG and any other government agencies having jurisdiction over the emergency actions. If required by the government agencies, the biological construction monitor would develop a reasonable and feasible mitigation plan consistent with the APMs and any permits previously issued for the project by the governmental agencies. (SDG&E)
Location	Entire project area.
Timing	During and post construction.
Status	
Review / Approval Status	

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

BIO-APM-17	<p>All new access roads or spur roads constructed as part of the project that are not required as permanent access for future Project maintenance and operation would be permanently closed. <del>Where required, roads would be permanently closed using the most effective feasible and least environmentally damaging methods appropriate to that area with the concurrence of the underlying landowner and the governmental agency having jurisdiction (e.g., stockpiling and replacing topsoil or rock replacement). This would limit new or improved accessibility into the area.</del> Mowing of vegetation can be an effective method for protecting the vegetative understory while at the same time creating access to the work area. Mowing should be used when permanent access is not required since, with time, total revegetation is expected. If mowing is in response to a permanent access need, but the alternative of grading is undesirable because of downstream siltation potential, it should be recognized that periodic mowing would be necessary to maintain permanent access. The project biological construction monitor shall conduct checks on mowing procedures to ensure that mowing for temporary or permanent access roads is limited to a 14-foot-wide area on straight portions of the road and a 16- to 20-foot-wide area at turns, and that the mowing height is no less than 4 inches from finished grade. (SDG&amp;E)</p>
Location	Entire project area.
Timing	During and post construction.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p>— <b>V-2b: Reduce visual contrast from unnatural vegetation lines.</b> In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for on-going operation, maintenance, or access shall be returned to pre-construction conditions. In those cases where potential public access is opened by construction routes, SDG&amp;E shall create barriers or fences to prevent public access and patrol construction routes to prevent vandalized access and litter clean-up until all vegetation removed returns to its pre-project state. SDG&amp;E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.</p>
	<p>— <b>(V-2b)</b> SDG&amp;E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.</p>
Location	All grading sites for access roads, spur roads, and ancillary facilities.
Monitoring / Reporting Action	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
Effectiveness Criteria	The occurrence of unnatural vegetation lines will be minimized and the resulting visual contrast will be minimal.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p>— <b>V-2c: Reduce color contrast of land scars on non-Forest lands.</b> For non-USFS-administered land areas where views of land scars from sensitive public viewing locations are unavoidable, disturbed soils shall be treated with Eonite or similar treatments to reduce the visual contrast created by the lighter-colored disturbed soils with the darker vegetated surroundings (Eonite and Permeon are commercially available chemical treatments that "age" or oxidize rock and are used specifically for coloring concrete or rock surfaces to tone down glare and contrast and simulate naturally occurring desert varnish). SDG&amp;E will consult with the Authorized Officer (as determined by the CPUC and BLM as appropriate) on a site-by-site basis for the use of Eonite.</p>

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	— (V-2c) SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the BLM and CPUC, as well as Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.
<b>Location</b>	Locations of all land scars that would be visible to the public.
<b>Monitoring / Reporting Action</b>	CPUC and BLM to review construction and restoration plans prior to start of construction and verify implementation following construction.
<b>Effectiveness Criteria</b>	The occurrence of high-contrast colors from exposed soils will be minimized and the resulting visual contrast will be minimal.
<b>Responsible Agency</b>	CPUC, BLM on BLM-administered lands
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>V-2f: Reduce land scarring and vegetation clearance impacts on USFS-administered lands.</b> Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line (USFS Scenery Conservation Plan). CPUC and USFS to review Scenery Conservation Plan at least 120 days prior to start of construction and verify implementation following construction.
<b>Location</b>	Locations of all land scars and vegetation clearance on USFS – administered lands.
<b>Monitoring / Reporting Action</b>	CPUC and USFS to review Scenery Conservation Plan prior to start of construction and verify implementation following construction.
<b>Effectiveness Criteria</b>	The occurrence of high-contrast colors from exposed soils will be minimized and the resulting visual contrast will be minimal.
<b>Responsible Agency</b>	CPUC, USFS
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p><b>V-3a: Reduce visual contrast of towers and conductors.</b> The following design measures shall be applied to all new structure locations, conductors, and re-conducted spans, in order to reduce the degree of visual contrast caused by the new towers and conductors:</p> <ul style="list-style-type: none"> <li>• All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.</li> <li>• All proposed new access roads shall be evaluated for their visibility from sensitive viewing locations prior to final design. Sensitive viewing locations have been defined by Cleveland National Forest as campgrounds, trailheads, trails, wilderness areas, backcountry roads, heavily traveled roads, and overlooks. Access roads of concern are those that would be visible as they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures. Prior to final design, SDG&amp;E shall consult with a visual resources specialist representing the CPUC and BLM and a qualified biologist to identify the following: <ul style="list-style-type: none"> <li>• Definition of towers with sensitive viewing areas from which visibility of access roads is a concern.</li> <li>• Approximate location and length of alternative access road routes if straight line roads are not used. Define habitat affected and steepness of terrain for consideration of habitat and erosion impacts. The biologist and visual resources specialist shall confirm that the overall impacts of the alternate access road are less than that of the original access road design.</li> <li>• “Drive and crush” access is a feasible measure for avoiding access road scars (i.e., no grading or vegetation removal is required). If this means of access is to be used, SDG&amp;E shall define frequency of driving and vehicle types such that a biologist confirms that vegetation would be likely to recover.</li> <li>• A table shall be submitted to the CPUC and BLM for review and approval at least 60 days before the start of construction to document towers for which this measure is applied, and the proposed resolution for each tower (i.e., retain straight line roads due to greater impacts from alternative routes, use “drive and crush” access, or develop alternate access road route.</li> </ul> </li> </ul>
<b>Location</b>	Applies to all tower locations and route segments.
<b>Monitoring / Reporting Action</b>	CPUC and BLM to review Project Design Plan prior to start of construction and verify implementation following construction.
<b>Effectiveness Criteria</b>	The occurrence of visual contrast from towers and conductor spans will be minimized. Asynchronous tower spans will be minimized.
<b>Responsible Agency</b>	CPUC, BLM on BLM-administered lands
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p>— <b>V-7a: Reduce visual contrast associated with ancillary facilities.</b> SDG&amp;E shall submit to BLM and CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structures, buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to BLM and CPUC for approval at least 90 days prior to (a) ordering the first structures that are to be color treated during manufacture, or (b) construction of any of the ancillary facility component, whichever comes first. If the BLM or CPUC notifies SDG&amp;E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&amp;E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:</p> <ul style="list-style-type: none"> <li>• Specification, and 11" x 17" color simulations at life size scale, of the treatment proposed for use on project structures, including structures treated during manufacture</li> <li>• A list of each major project structure, building, tower and/or pole, and fencing specifying the color(s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation)</li> <li>• Two sets of brochures and/or color chips for each proposed color</li> <li>• A detailed schedule for completion of the treatment</li> <li>• A procedure to ensure proper treatment maintenance for the life of the project.</li> </ul> <p>— <b>(V-7a)</b> SDG&amp;E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture, or perform the final treatment on any buildings or structures treated onsite, until SDG&amp;E receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SDG&amp;E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.</p>
<b>Location</b>	Applies to all permanent ancillary facilities including substations and switchyards.
<b>Monitoring / Reporting Action</b>	CPUC and BLM to review Surface Treatment Plan prior to start of construction and verify implementation following construction.
<b>Effectiveness Criteria</b>	The occurrence of visual contrast from ancillary facilities will be minimized and facilities will blend with the landscape to the extent feasible.
<b>Responsible Agency</b>	CPUC, BLM on BLM-administered lands
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<p><b>V-7b: Screen ancillary facilities.</b> SDG&amp;E shall provide a Screening Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities (except Imperial Valley Substation) and helps the facility blend in with the landscape. The use of berms to facilitate project screening may also be incorporated into the Plan. SDG&amp;E shall submit the Plan to the BLM and CPUC for review and approval at least 90 days prior to installing the landscape screening. If the BLM or CPUC notifies SDG&amp;E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&amp;E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> <li>• An 11" x 17" color simulation of the proposed landscaping at 5 years</li> <li>• A plan view to scale depicting the project and the location of screening elements</li> <li>• A detailed list of any plants to be used; their size and age at planting; the expected time to maturity, and the expected height at five years and at maturity</li> </ul> <p>— <b>(V-7b)</b> SDG&amp;E shall complete installation of the screening prior to the start of project operation. SDG&amp;E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.</p>
<b>Location</b>	Applies to all permanent ancillary facilities including substations and switchyards.
<b>Monitoring / Reporting Action</b>	CPUC and BLM to review Screening Plan prior to start of construction and verify implementation following construction.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

Effectiveness Criteria	The occurrence of visual contrast from ancillary facilities will be minimized and facilities will blend with the landscape to the extent feasible.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	
<b>MITIGATION MEASURE</b>	<p>— <b>V-21a: Reduce night lighting impacts.</b> SDG&amp;E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized.</p> <p>— <b>(V-21)</b> SDG&amp;E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days prior to ordering any permanent exterior lighting fixtures or components. SDG&amp;E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following:</p> <ul style="list-style-type: none"> <li>• Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources is shielded to prevent light trespass outside the project boundary</li> <li>• All lighting shall be of minimum necessary brightness consistent with worker safety</li> <li>• High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.</li> </ul>
Location	Applies to all permanent ancillary facilities including substations, switchyards, series capacitor banks, and optical repeater stations.
Monitoring / Reporting Action	CPUC and BLM to review Lighting Mitigation Plan prior to start of construction and verify implementation following construction.
Effectiveness Criteria	Light bulbs and reflectors at Construction yards and staging areas would not be visible from public viewing areas and night lighting would not cause reflected glare and illumination beyond the construction site and into the nighttime sky.
Responsible Agency	CPUC, BLM on BLM-administered lands
Timing	Pre-, during and post construction.
Status	
Review / Approval Status	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p><b>V-45a Prepare and implement Scenery Conservation Plan.</b> Within one year after license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a Scenery Conservation Plan that is approved by the Forest Service. The purpose of this Scenery Conservation Plan is to identify specific actions that will minimize the project's visible disturbance to the naturally established scenery and to establish final direction to best achieve the spirit and intent of the Scenic Integrity Objectives of the Cleveland National Forest Land and Resource Management Plan. To achieve the greatest consistency with the Scenic Integrity Objectives, the project shall detail and integrate the following design recommendations into the Scenery Conservation Plan:</p> <ul style="list-style-type: none"> <li>• <b>Power Line and Support Towers.</b> Transmission lines shall be nonspecular (nonreflective) and neutral in coloration. Support towers shall be custom-colored with a flat, non-reflective finish, to visually blend with native vegetation colors to appear as visually transparent as possible within the natural landscape pattern. Towers shall be designed to minimize their visual prominence and contrast to the natural landscape.</li> <li>• <b>Distance Zones.</b> The Applicant shall consult with the Forest Service on tower design for any approved route on Forest lands and implement tower styles in accordance with agency direction. In general, the USFS requires that support towers within approximately one mile of sensitive primary viewpoints and without a backdrop be a monopole design with a simple, clean and less industrial appearance and support towers viewed beyond one mile from sensitive viewpoints or only at distance be lattice towers.</li> <li>• <b>Vegetation Clearing.</b> Vegetation within the right of way and ground clearing at the foot of each tower and between towers will be limited to the clearing necessary to comply with electrical safety and fire clearance requirements. Mitigation will be incorporated to reduce the total visual impact of all vegetation clearing performed for the power line.</li> <li>• <b>Roads.</b> No new access or spur roads, or improvements (reconstruction/expansion) to existing roads are to be constructed in the following areas: (1) where ground slopes exceed 15%, or (2) on Forest lands subject to a HIGH Scenic Integrity Objective (SIO) where the new access or spur road would be visible from primary travel (paved) roads or the Pacific Crest National Scenic Trail, regardless of ground slope. Existing roads needing reconstruction/expansion on other areas of the forest shall be configured to minimize the creation of cut/fill slopes. Where such slopes are created, they shall be immediately treated to minimize their level of scenery disturbance. These treatments may include construction of structural elements designed to blend with the adjacent natural scenery, or revegetation with native species.</li> <li>• <b>Structures.</b> All structures and structural elements, that may be constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast, blend, and complement the adjacent forest and community architectural character.</li> <li>• <b>Evaluation of Effects.</b> The Licensee may be required to provide photorealistic visual simulations of proposed designs and mitigation measures to demonstrate their effectiveness in achieving Land and Resource Management Plan Scenic Integrity Objectives as viewed from sensitive viewsheds.</li> <li>• <b>Off-Site Mitigation.</b> Where project features create unavoidable and permanent negative scenery effects that are inconsistent with CNF Plan Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas in new viewsheds agreeable to the Forest shall be purchased and assigned to the Forest for its stewardship.</li> </ul>
<b>Location</b>	Applies to all tower locations, facilities, and route segments within Cleveland National Forest Lands.
<b>Monitoring / Reporting Action</b>	CNF to review Scenery Conservation Plan within one year after license issuance, or prior to any ground disturbing activities.
<b>Effectiveness Criteria</b>	The occurrence of visual contrast from towers and conductor spans will be minimized. Asynchronous tower spans will be minimized.
<b>Responsible Agency</b>	CNF
<b>Timing</b>	Pre-, during and post construction.

Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction

Status	
Review / Approval Status	
	<p>— <b>WR-2b: Evaluate and Implement PCT Route Revision.</b> SDG&amp;E shall consult and coordinate with the U.S. Forest Service, BLM, and the Pacific Crest Trail Association to develop route options for revising the PCT so it would cross the Modified Route D Alternative only once, rather than three times. SDG&amp;E shall prepare and submit a report to the BLM and U.S. Forest Service prior to energizing the new transmission line. The report shall identify feasible PCT relocation options, and, under the direction of the federal agencies, shall evaluate whether its construction and restoration of the old trail segment would create overall greater impacts than those created by three crossings of the PCT that would occur with the Modified Route D Alternative.</p> <p>— <b>(WR-2b)</b> If directed by the BLM, SDG&amp;E shall be responsible for constructing the new trail segment and restoring the old trail segment in manner acceptable to the BLM and U.S. Forest Service. Trail construction and restoration shall be completed within one year of energizing the transmission line.</p>
Location	Modified Route D Alternative at PCT Crossing
Monitoring / Reporting Action	Consult and coordinate with USFS, BLM, and Pacific Crest Trail Association
Effectiveness Criteria	PCT relocation options are identified and implemented at the direction of the agencies
Responsible Agency	USFS; BLM
Timing	Post construction, pre-energizing the line.
Status	
Review / Approval Status	
MITIGATION MEASURE	<p><b>AG-1b: Restore compacted soil.</b> The Applicant shall restore soils compacted or disturbed such as by excavation during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, removal of excavated soil, or other suitable restoration methods.</p> <p>This shall occur thirty (30) days after completion of construction clean-up and site restoration at each property.</p>
Location	Locations where changes to the existing environment due to construction activities could result in compacted soil.
Monitoring / Reporting Action	After construction is completed, land is restored per agreement with landowner. Monitors will verify that restoration activity has been completed and landowner has concurred that restoration effort is consistent with original agreement. SDG&E shall provide copies of the original agreements and the restoration concurrence acknowledgement from the landowner.
Effectiveness Criteria	Affected landowners are in agreement with restoration
Responsible Agency	CPUC, BLM Offices
Timing	Post construction.
Status	
Review / Approval Status	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p><b>AG-1c: Coordinate with grazing operators.</b> SDG&amp;E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to:</p> <ul style="list-style-type: none"> <li>• Interference with access to water (e.g., provide alternate methods for livestock access to water)</li> <li>• Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)</li> <li>• Removal and replacement of fencing (e.g., during construction install temporary fencing/barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged)</li> <li>• Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)</li> </ul> <p>This shall occur Sixty (60) days prior to the start of project construction and Thirty (30) days after construction on each property.</p>
<b>Location</b>	Locations where the project could interfere with grazing operations
<b>Monitoring / Reporting Action</b>	Verify coordination has taken place and an agreement has been reached.
<b>Effectiveness Criteria</b>	Coordination has been conducted with appropriate landowners or tenants and reasonable procedures to implement the mitigation measure have been agreed to by all parties.
<b>Responsible Agency</b>	CPUC, BLM Offices
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<p>— <b>C-1d: Conduct data recovery to reduce adverse effects.</b> If NRHP- and/or CRHR-eligible resources, as determined by the BLM and SHPO, cannot be protected from direct impacts of the Proposed Project, data-recovery investigations shall be conducted by the Applicant to reduce adverse effects to the characteristics of each property that contribute to its NRHP- and/or CRHR-eligibility. For sites eligible under Criterion (d), significant data would be recovered through excavation and analysis.</p> <p>— <b>(C-1d)</b> For properties eligible under Criteria (a), (b), or (c), data recovery may include historical documentation, photography, collection of oral histories, architectural or engineering documentation, preparation of a scholarly work, or some form of public awareness or interpretation. Data gathered during the evaluation phase studies and the research design element of the Historic Properties Treatment Plan (HPTP) shall guide plans and data thresholds for data recovery; treatment shall be based on the resource's research potential beyond that realized during resource recordation and evaluation studies. If data recovery is necessary, sampling for data-recovery excavations shall follow standard statistical sampling methods, but sampling shall be confined, as much as possible, to the direct impact area. Data-recovery methods, sample sizes, and procedures shall be detailed in the HPTP consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan) and implemented by the Applicant only after approval by the BLM and CPUC.</p> <p>— <b>(C-1d)</b> Following any field investigations required for data recovery, the Applicant shall document the field studies and findings, including an assessment of whether adequate data were recovered to reduce adverse project effects, in a brief field closure report. The field closure report shall be submitted to the BLM and CPUC for their review and approval, as well as to appropriate State repositories, local governments, and other appropriate agencies. Construction work within 100 feet of cultural resources that require data-recovery fieldwork shall not begin until authorized by the BLM or CPUC, as appropriate, to ensure that impacts to known significant archaeological deposits are adequately mitigated. Field closure report prior to construction within 100 ft of affected resource. Final report of data-recovery investigations within one year of completion of fieldwork.</p>
<b>Location</b>	Within 100 ft of resources identified in HPTP that require data-recovery mitigation.

**Sunrise Powerlink Project**  
**MITIGATION MONITORING, COMPLIANCE, AND REPORTING PROGRAM**

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>Monitoring / Reporting Action</b>	<ul style="list-style-type: none"> <li>• BLM and CPUC review and approve field closure report of data-recovery fieldwork.</li> <li>• BLM and CPUC review and approve final report of data recovery, curation of artifacts and data, and dissemination of final report.</li> </ul>
<b>Effectiveness Criteria</b>	Data-recovery investigations, curation, and reporting fulfill all requirements of the agreement document promulgated with the Advisory Council.
<b>Responsible Agency</b>	BLM and CPUC.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>C-4a: Complete consultation with Native American and other Traditional Groups.</b> The Applicant shall provide assistance to the BLM, as requested by the BLM, to complete required government-to-government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994 and Section 106 of the National Historic Preservation Act) and other Traditional Groups to assess the impact of the approved project on Traditional Cultural Properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM, the Applicant shall undertake required treatments, studies, or other actions that result from such consultation. Written documentation of the completion of all pre-construction actions shall be submitted by the Applicant and approved by the BLM at least 30 days before commencement of construction activities. Actions that are required during or after construction shall be defined, detailed, and scheduled in the Historic Properties Treatment Plan and implemented by the Applicant, consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).
<b>Location</b>	Entire Project.
<b>Monitoring / Reporting Action</b>	<ul style="list-style-type: none"> <li>• Signature of agreement documents for treatment of TCPs.</li> <li>• Written documentation and approval by BLM and CPUC of completion of required treatment.</li> </ul>
<b>Effectiveness Criteria</b>	TCPs and other resources of Native American concern are treated in accordance with agreements that are made during consultation.
<b>Responsible Agency</b>	BLM and CPUC.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>— C-5a: Protect and monitor NRHP- and/or CRHR-eligible properties.</b> The Applicant shall design and implement a long-term plan to protect National Register of Historic Places (NRHP- and/or CRHR)-eligible sites from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM to design measures that will be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include protective measures for NRHP- and/or CRHR-eligible properties within the transmission line corridor that will experience operational and access impacts as a result of the Proposed Project. Measures considered shall include restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting NRHP- and/or CRHR-eligible properties. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to NRHP- and/or CRHR-eligible properties. The plan shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies for review and approval at least 30 days prior to project operation.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

	<p>— (C-5a) Monitoring of sites selected during consultation with BLM shall be conducted annually by a professional archaeologist for a period of five years. Monitoring shall include inspection of all site loci and defined surface features, documented by photographs from fixed photo monitoring stations and written observations. A monitoring report shall be submitted to the BLM, CPUC, and other appropriate land-managing agencies within one month following the annual resource monitoring. The report shall indicate any properties that have been affected by erosion or vehicle or maintenance impacts. For properties that have been impacted, the Applicant shall provide recommendations for mitigating impacts and for improving protective measures. After the fifth year of resource monitoring, the BLM, CPUC, or other land-managing agency, as appropriate, will evaluate the effectiveness of the protective measures and the monitoring program. Based on that evaluation, the BLM or CPUC may require that the Applicant revise or refine the protective measures, or alter the monitoring protocol or schedule. If the BLM does not authorize alteration of the monitoring protocol or schedule, those shall remain in effect for the duration of project operation.</p>
	<p>— (C-5a) If the annual monitoring program identifies adverse effects to National Register of Historic Places (NRHP- and/or CRHR)-eligible properties from operation or long-term presence of the project, or if, at any time, the Applicant, BLM, CPUC, or other appropriate land-managing agency become aware of such adverse effects, the Applicant shall notify the BLM and CPUC immediately and implement additional protective measures, as directed by the BLM and CPUC. At the discretion of the BLM and CPUC, such measures may include, but not be limited to refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection. 30 days prior to and during project operation. During operation, annually for 5 years. Thereafter, on a schedule determined by BLM and CPUC and/or immediately upon discovery of adverse changes to NRHP or CRHR-eligible property.</p>
<b>Location</b>	All locations identified in long-term protection plan.
<b>Monitoring / Reporting Action</b>	BLM and CPUC review and approval of long-term protection plan; compliance with reporting and monitoring provisions in the approved protection plan. Following construction, annual site monitoring; immediate notification to BLM and CPUC of adverse changes.
<b>Effectiveness Criteria</b>	Known cultural resources are not affected by long-term project operation and adverse changes to NRHP and CRHR-eligible properties are mitigated.
<b>Responsible Agency</b>	BLM and CPUC.
<b>Timing</b>	Pre-, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
CR-APM-9	<ol style="list-style-type: none"> <li>1. Permanent fencing or barriers will be installed, or access to the historic property will be controlled as deemed appropriate by the relevant agencies.</li> <li>2. Use of access for construction or operation will be restricted.</li> <li>3. Construction and maintenance personnel will be instructed in protection of sensitive properties. (SDG&amp;E)</li> </ol>
<b>Location</b>	Entire project area.
<b>Timing</b>	Pre, during and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>N-3a: Respond to complaints of corona noise.</b> SDG&E shall respond to third-party complaints of corona noise generated by operation of the transmission line by investigating the complaints and by implementing feasible and appropriate measures (such as repair damaged conductors, insulators, or other hardware). As part of SDG&E's repair inspection and maintenance program, the transmission line shall be patrolled, and damaged insulators or other transmission line materials, which could cause excessive noise, shall be repaired or replaced.
<b>Location</b>	All overhead transmission line segments.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>Monitoring / Reporting Action</b>	CPUC/BLM monitor verifies that SDG&E investigates noise complaints, implements feasible repairs, and maintains a repair inspection and maintenance program to manage corona noise.
<b>Effectiveness Criteria</b>	Corona noise is managed.
<b>Responsible Agency</b>	CPUC; BLM El Centro Field Office.
<b>Timing</b>	Post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>T-5a: Repair roadways damaged by construction activities.</b> If damage to roads, occurs, SDG&E shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired at SDG&E's cost. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regarding and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.
<b>Location</b>	All roads used to access the construction sites
<b>Monitoring / Reporting Action</b>	Review documentation to ensure that SDG&E obtained permits for construction within each road ROW prior to construction. Verify that each affected roadway has been satisfactorily restored and/or reconstructed within 30 days of the end of the construction.
<b>Effectiveness Criteria</b>	Restoration/maintenance of roads to pre-construction conditions as determined by the affected public agency.
<b>Responsible Agency</b>	CPUC, BLM and affected jurisdictions
<b>Timing</b>	Post construction
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>PS-1b: Document and resolve electronic interference complaints.</b> After energizing the transmission line, SDG&E shall respond to and document all radio/television/equipment interference complaints received and the responsive action taken. These records shall be made available to the CPUC for review upon request. All unresolved disputes shall be referred by SDG&E to the CPUC for resolution.
<b>Location</b>	Along the overhead route segment
<b>Monitoring / Reporting Action</b>	Review documentation provided.
<b>Effectiveness Criteria</b>	All radio/television/equipment interference disputes are resolved.
<b>Responsible Agency</b>	CPUC
<b>Timing</b>	Post construction
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>PS-2a: Implement grounding measures.</b> As part of the siting and construction process for the Proposed Project, SDG&E shall identify objects (such as fences, metal buildings, and pipelines) within and near the right-of-way that have the potential for induced voltages and shall implement electrical grounding of metallic objects in accordance with SDG&E's standards. The identification of objects shall document the threshold electric field strength and metallic object size at which grounding becomes necessary.
<b>Location</b>	Along the entire transmission line route
<b>Monitoring / Reporting Action</b>	Review documentation provided; verify that necessary grounding measures are installed.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

Effectiveness Criteria	The potential for impacts associated with induced currents and voltages on objects near the energized transmission line are reduced.
Responsible Agency	CPUC
Timing	During construction and post construction pre-energizing the line.
Status	
Review / Approval Status	
<b>MITIGATION MEASURE</b>	<b>AQ-4b: Offset operation-phase greenhouse gas emissions with carbon credits.</b> SDG&E shall create greenhouse gas emission reductions or obtain and hold for the life of the project sufficient carbon credits to fully offset greenhouse gas emissions caused by activity to support transmission line operation, maintenance, and inspection activities. To determine the quantity of carbon credits that must be created or obtained and held each year, SDG&E must develop a complete GHG inventory annually for project-related operational emissions. SDG&E shall follow established methodologies to report and inventory indirect GHG emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project. SDG&E shall report to the CPUC annually the status of efforts to obtain banked credits and the quantity of greenhouse gas emissions offset by credits. Established methodologies for determining project-related emissions include the current California Climate Action Registry (CCAR) General Reporting Protocol, and the Power/Utility Reporting Protocol appendix to the General Reporting Protocol. Carbon Reduction Tons (CRTs) verified according to the rules of the California Climate Action Registry may be retired by SDG&E to satisfy this requirement.
Location	All areas.
Monitoring / Reporting Action	Review SDG&E holdings of carbon credits.
Effectiveness Criteria	Greenhouse gas emissions fully offset.
Responsible Agency	CPUC and BLM
Timing	Post construction
Status	
Review / Approval Status	
<b>MITIGATION MEASURE</b>	<b>AQ-4c: Avoid sulfur hexafluoride emissions.</b> SDG&E shall identify sulfur hexafluoride (SF <sub>6</sub> ) leaks and establish a strategy for replacing leaking equipment to reduce SF <sub>6</sub> leaks. To accomplish this, SDG&E shall develop and maintain a record of SF <sub>6</sub> purchases, an SF <sub>6</sub> leak detection and repair program using laser imaging leak detection and monitoring no less frequently than quarterly, an SF <sub>6</sub> recycling program, and an employee education and training program for avoiding or eliminating SF <sub>6</sub> emissions caused by the Proposed Project. The SF <sub>6</sub> leak detection and repair program shall be provided to the CPUC and BLM 90 days prior to project construction. Prior to construction, SDG&E shall also become a Partner in the U.S. EPA's SF <sub>6</sub> Emissions Reduction Partnership for Electric Power Systems. SDG&E shall also report SF <sub>6</sub> emissions from the Proposed Project to the California Climate Action Registry according to CCAR methodologies or alternate methodology approved by the California Air Resources Board. To develop a complete GHG inventory, SDG&E shall follow established methodologies to report indirect GHG emissions from energy imported and consumed to support operation of the Proposed Project and indirect GHG emissions from transmission and distribution losses associated with the Proposed Project.
Location	All areas.
Monitoring / Reporting Action	Review strategies for replacing leaking equipment, leak detection and repair, recycling, and education.
Effectiveness Criteria	SF <sub>6</sub> emissions are avoided.
Responsible Agency	CPUC and BLM
Timing	Pre- and post construction
Status	
Review / Approval Status	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

WQ-APM-1	All construction and maintenance activities shall be conducted in a manner that minimizes disturbance to riparian/wetland vegetation, drainage channels, and intermittent and perennial stream banks to the extent feasible. (SDG&E)
Location	Entire project area.
Timing	Pre-, during and post construction
Status	
Review / Approval Status	
WQ-APM-16	If sensitive water resource features contain riparian areas, habitats of endangered species, streambeds, cultural resources, and wetlands which cannot be avoided, a qualified biological contractor shall conduct site-specific assessments for each affected site. These assessments shall be conducted in accordance with ACOE wetland delineation guidelines, as well as CDFG streambed and lake assessment guidelines, and shall include impact minimization measures to reduce wetland impacts to a less than significant effect (e.g., through creation or restoration of wetlands). Though construction or maintenance vehicle access through shallow creeks or streams is allowed, staging/storage areas for equipment and materials shall be located outside of riparian areas. Construction of new access through streambeds that require filling for access purposes would require a Streambed Alteration Agreement from the CDFG and/or consultation/approval with the ACOE and SWRCB/RWQCB. Where filling is required for new access, the installation of properly sized culverts and the use of geo-textile matting should be considered in the CDFG/ACOE consultation process. (SDG&E)
Location	Entire project area.
Timing	Pre-, during and post construction
Status	
Review / Approval Status	
MITIGATION MEASURE	<b>F-1b: Amend and implement Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007).</b> The draft SDG&E Plan and final Sempra Utilities Wildland Fire Prevention and Fire Safety Guide (2007) are presented in Appendix 3D. The Amended Plan shall, at a minimum, include all of the provisions of the Final Plan and the Construction Fire Plan (per Mitigation Measure F-1a). The plan shall be revisited and updated once every five years to incorporate new regulations, practices, technologies, and fire science research. SDG&E shall submit the Plan for review and comment by the following agencies at least 90 days prior to energizing the Proposed Project: CPUC, BLM, U.S. Forest Service, and ABDSP, and shall submit the Plan (with agency comments incorporated) for review and approval by Cal Fire at least 90 days prior to energizing the Proposed Project.
Location	Along entire Proposed Project and Alternatives
Monitoring / Reporting Action	CPUC, BLM, CAL FIRE, U.S. Forest Service, and ABDSP will review and comment and CAL FIRE will approve the SDG&E Fire Plan for Electric Standard Practice. CPUC and BLM will verify adoption of plan.
Effectiveness Criteria	Approval and implementation of the Plan Quarterly updates to agencies Work stoppage during Red Flag Warnings and Very High PAL
Responsible Agency	CPUC, BLM, CAL FIRE, U.S. Forest Service, and ABDSP
Timing	Post construction, pre-energizing the line.
Status	
Review / Approval Status	
MITIGATION MEASURE	<b>F-1d: Remove hazards from the work area.</b> The Applicant shall clear dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes only those areas where personnel are active or where equipment is in use or stored, and may include portions of the transmission right-of-way (ROW), construction laydown areas, pull sites, access roads, parking pads, and any other sites adjacent to the ROW where personnel are active or where equipment is in use or stored. Cleared dead and decaying vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

Location	Along entire Proposed Project and Alternatives
Monitoring / Reporting Action	CPUC/BLM monitor SDG&E work areas.
Effectiveness Criteria	Work areas remain clear of brush and dead and decaying vegetation
Responsible Agency	CPUC; BLM
Timing	Pre-, during and post construction
Status	
Review / Approval Status	
<b>MITIGATION MEASURE</b>	<b>F-1e: Contribute to defensible space grants fund.</b> SDG&E shall contribute an annual sum to a fund that shall be distributed as homeowner grants for the creation of defensible space around homes, to promote compliance with PRC 4291, and to facilitate firefighting efforts and reduce structure damage from wildfires potentially ignited by the transmission line. The dollar value of the contribution is \$2000 (2008USD) per home determined to be affected through Fire Behavior Model analysis (Table D.15-25). Grants from the fund shall be distributed to those homeowners at highest risk of sustaining structure damage from an ignition-related to the transmission line, as demonstrated by the Fire Behavior Trend Model results. Grants may alternatively be used toward retrofitting rooftops with fire-proof materials, fire shutters, double pane windows, cave boxing, removal of attic vents and/or installation of alternatives, automatic or remotely-operated water sprinklers and automatic or remotely-operated generator-supported water systems, and removal or replacement of wood fencing and decks with fire-resistant materials, at the discretion of the homeowner and under advisement by the agencies. The mechanism for grants distribution shall be determined through agency negotiations and detailed in the Memorandum of Understanding (Mitigation Measure F-3b).
Location	Along entire Proposed Project and Alternatives
Monitoring / Reporting Action	CPUC/BLM verifies SDG&E contributes sum to fund.
Effectiveness Criteria	Annual contributions are made according to MOU and Table D.15-25 (see below)
Responsible Agency	CPUC/BLM
Timing	Post construction
Status	
Review / Approval Status	
<b>MITIGATION MEASURE</b>	<b>— F-2a: Establish and maintain adequate line clearances.</b> The Applicant shall establish adequate conductor clearances prior to energizing the project by removing all vegetation from within 15 radial feet of new and relocated overhead 69 kV, 230 kV, and 500 kV conductors under maximum sag and sway. Only trees and vegetation with a mature height of 15 feet or less shall be permitted within the ROW, except where the transmission line spans a canyon. In addition, tree branches that overhang the ROW within 15 horizontal feet of any conductor shall be trimmed or removed, as appropriate, including those on steep hillsides that may be many vertical feet above the facility. Cleared vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.  <b>— F-2a</b> During the life of the project, the Applicant shall maintain adequate conductor clearances by inspecting the growth of vegetation along the entire length of the overhead transmission line at least once each spring and documenting the survey and results in a report submitted to the CPUC before June 1 of each year. Conductor clearance of 15 radial feet under maximum sag and sway shall be maintained at all times.  Maximum sag and sway shall be computed based on ambient temperatures of no less than 120 degrees Fahrenheit and wind gusts of no less than 100 miles per hour.
Location	Along entire Proposed Project and Alternatives
Monitoring / Reporting Action	CPUC/BLM monitor verifies that SDG&E established adequate conductor clearance.
Effectiveness Criteria	Adequate (15 foot) conductor clearance is maintained
Responsible Agency	CPUC; BLM
Timing	Post construction, prior to energizing the project and for the life of the project.

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>F-2c: Perform climbing inspections.</b> The Applicant shall perform climbing inspections on 10 percent of project structures annually, such that every project structure has been climbed and inspected at the end of a 10-year period, for the life of the project. In addition, the Applicant shall keep a detailed inspection log of climbing inspections, and any potential structural weaknesses or imminent component failures shall be acted upon immediately. The inspection log shall be submitted to CPUC for review on an annual basis.
<b>Location</b>	Along entire Proposed Project and Alternatives
<b>Monitoring / Reporting Action</b>	Inspection log is provided to CPUC annually
<b>Effectiveness Criteria</b>	Climbing inspections are performed on 10 percent of structures annually
<b>Responsible Agency</b>	CPUC; BLM
<b>Timing</b>	Post construction
<b>Status</b>	
<b>Review / Approval Status</b>	
<b>MITIGATION MEASURE</b>	<b>F-3a: Contribute to Powerline Firefighting Mitigation Fund.</b> The Applicant shall contribute an annual sum to local, State, and federal fire protection districts in the project vicinity through the mechanism of a new Powerline Firefighting Mitigation Fund, which shall be organized and carried out by SDG&E, and shall be subject to the oversight of the CPUC for the life of the Fund. Funding shall be used toward fire prevention measures and protection equipment and services, as appropriate to each jurisdiction. An increase in funding for fire prevention and suppression services and equipment will increase the probability of a fire being successfully contained, especially during normal weather conditions, and will therefore partially mitigate the significant barrier the transmission line poses to firefighting operations. The annual sum shall be based on an equivalent fuelbreak mitigation (presented as Mitigation Measure F-3a in the Draft EIR/EIS), which is an alternative means of partially mitigating the significant effect that the presence of the transmission line on firefighting operations, but which would be jurisdictionally infeasible. This shall be \$1,000 per acre for the first year plus \$250 per acre for each subsequent year for the life of the project (in 2008 United States Dollars), based on the number of miles of Wildfire Containment Conflict listed in Table D.15-26 (see below). Should CAL FIRE wish to take over administrative authority for the Powerline Firefighting Mitigation Fund, an administrative transfer shall not be in violation of Mitigation Measure F-3a.
<b>Location</b>	Fund contribution based on miles of Wildfire Containment Conflict
<b>Monitoring / Reporting Action</b>	SDG&E provides proof of annual payment. CPUC, BLM, and U.S. Forest Service will ensure SDG&E contributes annually to the fund and shall have oversight for the life of the fund. The funds shall be used toward fire prevention measures and protection equipment and services.
<b>Effectiveness Criteria</b>	Annual sum is paid to Powerline Firefighting Mitigation Fund.
<b>Responsible Agency</b>	CPUC; BLM, U.S. Forest Service
<b>Timing</b>	Pre-, during and post construction
<b>Status</b>	
<b>Review / Approval Status</b>	

**Table J-1. Mitigation Measures and Applicant Proposed Measures – Post Construction**

<b>MITIGATION MEASURE</b>	<p><b>F-3b: Prepare and implement a Multi-agency Fire Prevention MOU.</b> A Memorandum of Understanding (MOU) for the SRPL shall be created and implemented between SDG&amp;E and the CAL FIRE San Diego Unit, Cleveland National Forest, and other agencies as appropriate using the existing Southwest Powerlink MOU as a template. The MOU shall be adopted prior to energizing the new transmission line. The purpose of this Multi-agency Fire Prevention MOU is to efficiently coordinate all aspects of agency and utility fire prevention plans and practices. The MOU shall integrate the following components of the utility fire plan with existing agency fire plans: fire prevention, firefighter safety, emergency communication, firefighter training of both ground and aerial utility personnel, and others as appropriate. Financial commitments of each participating organization to pre-fire planning, preparedness, and prevention programs shall be stipulated in the MOU. The MOU shall stipulate the mechanism for defensible space grants distribution (Mitigation Measure F-1e). This MOU shall be periodically reviewed and updated at a minimum of once every five years to accommodate changes in regulations and environmental conditions. A community education and outreach program on the fire prevention plans and practices implemented by the MOU shall be adopted. A key element of the MOU shall be ensuring immediate transmission line de-energizing during fire emergencies and ensuring adequate and immediate communication to fire agencies of line de-energizing. SDG&amp;E shall provide all appropriate local, State, and federal fire dispatching agencies with an on-call contact person (Fire Coordinator) who has the authority to shut down the line in areas affected by a fire. The transmission line shall be de-energized prior to and during fire suppression activities within 1,000 feet of the transmission corridor to maintain firefighter safety, and re-energizing shall require notification of all fire agencies.</p>
<b>Location</b>	Along entire Proposed Project and Alternatives
<b>Monitoring / Reporting Action</b>	CPUC/BLM monitor verifies that MOU is created and implemented between SDG&E and the CAL FIRE San Diego Unit, Cleveland National Forest, and other agencies as appropriate.
<b>Effectiveness Criteria</b>	MOU is drafted, agreed upon, and reviewed every five (5) years
<b>Responsible Agency</b>	CPUC; BLM
<b>Timing</b>	Pre-, during, and post construction.
<b>Status</b>	
<b>Review / Approval Status</b>	