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## Appendix 12. Full Text of Mitigation Measures

Please note, some mitigation measures are repeated a number of times as they are specific to an Alternative or Link. The respective Alternative or Link is identified either in the text of the mitigation measure or immediately following the mitigation measure.

Also, some mitigation measure numbers have been repeated for more than one mitigation measure. This will be corrected in the Final EIR/EIS but was left as is in Appendix 12 so that the reader can identify the mitigation measure as named in the Draft EIR/EIS. The repeated mitigation measures will be identified by their corresponding alternative following the mitigation text.

### Biological Resources

**B-1a Provide restoration/compensation for affected 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. 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 off-site acquisition and preservation of the vegetation community instead. 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. 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.

All limits of construction shall be delineated with orange construction fencing. 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.

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.

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 on-site 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 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, off-site 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 or ABDSP (supersedes the mitigation ratios in BIO-APM-1).

**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 ratio shall be 1:1.

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 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 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.

**Mitigation Parcels/Habitat Management Plans.** All off-site 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 prior to the initiation of vegetation disturbing activities. 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 off-site 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, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- 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)
- Baseline biological data for all mitigation parcels
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-1a(CA) Provide restoration/compensation for affected sensitive vegetation communities.** Mitigation Measure B-1a(CA) is identical to Mitigation Measure B-1a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-1a(FT) Provide restoration/compensation for affected sensitive vegetation communities.** Mitigation Measure B-1a(FT) is identical to Mitigation Measure B-1a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-1a(LE) Provide restoration/compensation for affected sensitive vegetation communities.** Mitigation Measure B-1a(LE) is identical to Mitigation Measure B-1a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is. See Table D.2-7 for compensation ratios.

**B-1b Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat.** Direct impacts to vernal pools and water-holding basins (aka road pools) shall be avoided where the absence of fairy shrimp has not been proven by USFWS protocol wet/dry sampling and/or where the absence of vernal pool indicator species has not been proven. Indirect impacts to vernal pool watersheds shall also be avoided. Temporary and permanent access roads shall not enter vernal pools or water holding basin

areas unless absolutely necessary. Where not avoided, the following mitigation shall be implemented.

Prior to construction, a qualified biologist (to be approved by the CPUC, BLM, and Wildlife Agencies; see Mitigation Measure B-1c) shall clearly stake and flag all vernal pools and potential water-holding basins that occur in proximity to the project that are not within the impact zone. In addition to vehicles being restricted from the staked and flagged areas, crewmembers on foot shall also avoid these areas. The qualified biologist shall conduct a pre-construction training session for the construction crew to inform them of the constraints. The qualified biologist shall ensure compliance with this mitigation measure by being present during all construction activities in areas with vernal pools and water-holding basins.

Access roads, including those used during maintenance activities, containing water-holding basins shall be used only when the water-holding basins are completely dry. If access roads must be used while any portion of the depressions within the roads are wet, metal plating or bridging shall be placed over the depressions to prevent alteration of the depression topography and hydrology, and to prevent impacts to fairy shrimp (where the absence of fairy shrimp has not been proven). This bridging or plating shall not be left in place for more than three weeks. Any bridging or plating shall be considered a direct impact to fairy shrimp (where not proven absent) and shall be mitigated in accordance with this mitigation measure as follows.

Permanent impacts to vernal pools (0.02 acres for the Proposed Project; see Table D.2-7) shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. Temporary impacts to vernal pools (0.15 acres for the Proposed Project; see Table D.2-7) shall be mitigated at a 2:1 ratio in the form of 1:1 on-site habitat restoration and 1:1 vernal pool habitat restoration outside the impact zone.

For the Proposed Project, the required mitigation for impacts to vernal pools includes on-site restoration of 0.15 acres and restoration of 0.19 acres of vernal pools outside the impact zone.

Permanent impacts to occupied fairy shrimp habitat (0.02 acres for the Proposed Project) shall be mitigated in the form of vernal pool habitat restoration at a 2:1 ratio outside the impact zone. Temporary impacts to occupied fairy shrimp habitat (0.04 acres for the Proposed Project) shall be mitigated at a 2:1 ratio in the form of 1:1 on-site habitat restoration and 1:1 vernal pool habitat restoration outside the impact zone.

For the Proposed Project, the required mitigation for impacts to occupied fairy shrimp habitat includes on-site restoration of 0.04 acres and restoration of 0.08 acres of vernal pools outside the impact zone.

Unauthorized impacts to vernal pools or occupied fairy shrimp habitat shall be mitigated at a 5:1 ratio. Restoration of the unauthorized impacts shall be credited at a 1:1 ratio; the remaining 4:1 shall be mitigated in the form of vernal pool restoration outside the impact zone.

The location selected for vernal pool restoration shall be located in the project region, be appropriate for vernal pool restoration, and be acceptable to the CPUC, BLM, and the Wildlife Agencies. The applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, and the Wildlife Agencies. The Habitat Restoration Specialist shall prepare and implement a Mitigation Plan to be approved in writing by the

CPUC, BLM, and the Wildlife Agencies. This Mitigation Plan, including the specific location and methods of the restoration efforts (e.g., removal of non-native plant species, use of salvaged vernal pool soils), must be approved in writing prior to the initiation of any activities which will impact (directly or indirectly) vernal pools or water-holding basins. The applicant shall work with the CPUC, BLM, and the Wildlife Agencies until a plan is approved by all.

The restoration of vernal pool habitat shall include the salvage of vernal pool/water-holding basin soils that would be impacted and that likely contain fairy shrimp cysts. The soils shall be used in the restoration of vernal pool habitat. The restored vernal pool habitat shall be maintained and monitored for five years after installation, or until established success criteria identified in the Mitigation Plan (e.g., specified percent cover of native and non-native species, species diversity, and species composition as compared with undisturbed reference pools) are met. If the mitigation fails to meet the established success 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, and the Wildlife Agencies.

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, and the Wildlife Agencies for all vernal pool habitat restoration areas. The Habitat Management Plan must be approved in writing by the CPUC, BLM, and Wildlife Agencies prior to the initiation of any activities which may impact (directly or indirectly) vernal pools or water-holding basins. The applicant shall work with the CPUC, BLM, and Wildlife Agencies until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all vernal pool habitat restoration areas. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all restoration areas approved by the CPUC, BLM, and Wildlife Agencies
- Baseline biological data for all restoration areas
- Designation of a land management entity approved by the CPUC, BLM, and Wildlife Agencies to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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, and Wildlife Agencies.

**B-1b(FT) Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat.** Mitigation Measure B-1b(FT) is identical to Mitigation Measure B-1b for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-1b(LE) Implement appropriate avoidance/minimization/compensation strategies for vernal pools and fairy shrimp habitat.** Mitigation Measure B-1b(LE) is identical to Mitigation Measure B-1b for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is.

**B-1c Conduct biological monitoring.** Monitoring shall be provided by a qualified biologist approved by the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies to ensure that all impacts occur within designated limits. Monitoring entails communicating with contractors, taking daily notes, and ensuring that the requirements of the APMs and mitigation measures are being met by being present during construction activities. The qualified biologist shall conduct monitoring for any area subject to disturbance from construction activities (or access roads used during maintenance activities in the case of vernal pools/water-holding basins; see Mitigation Measure B-1b). The applicant, its contractors and subcontractors, and their respective project personnel, shall refer all environmental issues, including wildlife relocation, sick or dead wildlife, hazardous waste, or questions about environmental impacts to the qualified biologist. Experts in wildlife handling (e.g., Project Wildlife) may need to be brought in by the qualified biologist for assistance with wildlife relocations.

The qualified biologist shall have the authority to issue stop work orders if any part of the mitigation measures or APMs are being violated. The qualified biologist shall immediately notify the CPUC, BLM, State Parks (for monitoring in ABDSP), USDA Forest Service (for alternatives that require monitoring on National Forest lands), and the Wildlife Agencies of any significant events discovered during the monitoring. Reinitiation of work following a stop work order shall only occur when the CPUC, BLM, State Parks (for impacts in ABDSP), USDA Forest Service (for alternatives with impacts on National Forest lands), and the Wildlife Agencies are satisfied that the impacts have been fully documented, that compensation for these impacts shall be made, and that any additional protection measures they deem necessary shall be undertaken.

**B-1c(CA) Conduct biological monitoring.** Mitigation Measure B-1c(CA) is identical to Mitigation Measure B-1c for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-1c(FT) Conduct biological monitoring.** Mitigation Measure B-1c(FT) is identical to Mitigation Measure B-1c for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-1c(LE) Conduct biological monitoring.** Mitigation Measure B-1c(LE) is identical to Mitigation Measure B-1c for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other

agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is.

- B-1d Perform protocol surveys.** SDG&E would perform any detailed on-the-ground protocol surveys, with regard to specific sensitive plant or wildlife species whose habitat would be impacted by the project based on final design, in accordance with state or federal regulations or statutes. SDG&E would submit results of these surveys to the USFWS and CDFG and consult on reasonable and feasible mitigation measures for potential impacts, prior to any ground disturbing activities in a particular area. Mitigation would prioritize avoidance as the primary means to address impacts. If avoidance is not feasible, then relocation/restoration would be implemented. Where relocation/restoration is not feasible or deemed not to fully address impacts, then mitigation through SDG&E’s NCCP mitigation credits or if necessary compensation via another on- or off-site purchase or dedication of habitat at a ratio of 2:1 for impacts inside preserves and 1:1 for impacts outside of preserves would be identified and implemented. [BIO-APM-1]
- B-1e Train project personnel.** Prior to construction, all SDG&E’s contractors, subcontractors and project personnel would receive training regarding the appropriate work practices necessary to effectively implement the biological APMs and to comply with the applicable environmental laws and regulations including appropriate wildlife avoidance, and impact minimization procedures, the importance of these resources and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. [BIO-APM-2]
- B-1f Construction and survey activities shall be restricted based on final design engineering drawings.** The area limits of project construction and survey activities would be predetermined based on the temporary and permanent disturbance areas noted on the final design engineering drawings, with activity restricted to and confined within those limits. Survey personnel shall keep survey vehicles on existing roads. During project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat would require prior approval from the project biological resource monitor in conformance with the APMs. Hiking off roads or paths for survey data collection is allowed year-round as long as other APMs are met. Stringing of new wire and reconductoring for the project would be allowed year round in sensitive habitats if the conductor is not allowed to drag on the ground or in brush and all vehicles used during stringing remain on project access roads. Where stringing requires that conductor drop within brush of drag on or through the brush or ground or vehicles leave project access roads, SDG&E would perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting birds or other endangered species in the work area. SDG&E would submit results of this survey to the USFWS and CDFG and consult on reasonable and feasible mitigation measures for potential impacts, prior to dropping wire in brush, dragging wire on the ground or through brush, or taking vehicles off project access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. No paint or permanent discoloring agents would be applied to rocks or vegetation to indicate limits of survey or construction activity where any sensitive biological resources or wildlife habitats are encountered in the field. [BIO-APM-4]

**B-1g Build access roads at right angles to streambeds and washes.** To the extent feasible, access roads would be built at right angles to the streambeds and washes. Where it is 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). Prior to construction in streambeds and washes, SDG&E would perform a pre-activity survey, or more as appropriate, to determine the presence or absence of endangered riparian species. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by the BIO-APM-1. [BIO-APM-5]

**B-1h Comply with all applicable environmental laws and regulations.** 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. [BIO-APM-6]

**B-1i Restrict the construction of access and spur roads.** Except when not feasible due to physical or safety constraints, all project vehicle movement would be restricted to existing access roads and access roads constructed as a part of the project and determined and marked by SDG&E in advance for the contractor, contractor-acquired accesses, or public roads. New access road construction for the project would be allowed year-round. However, when feasible, every effort would be made to avoid constructing roads during the nesting season. When it is not feasible to keep vehicles on existing access roads or to avoid constructing new access roads during the nesting, breeding, or flight season, SDG&E would perform a site survey, or more as appropriate, in the area where the work is to occur. This survey would be performed to determine presence or absence of endangered nesting birds, or other endangered species in the work area. SDG&E would submit results of this survey to the USFWS and CDFG and consult on reasonable mitigation measures to avoid or minimize for potential impacts, prior to vehicle use off existing access roads or the construction of new access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys otherwise required by BIO-APM-1. Parking or driving underneath oak trees is not allowed in order to protect root structures. In addition to regular watering to control fugitive dust created during clearing, grading, earth-moving, excavation, and other construction activities which could interfere with plant photosynthesis, a 15 miles per hour speed limit shall be observed on dirt access roads to reduce dust and allow reptiles and small mammals to disperse. [BIO-APM-3]

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. 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. 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 re-vegetation 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. [BIO-APM-17]

**B-1j** **Protect and restore vegetation.** In construction areas where re-contouring is not required, vegetation shall be left in place wherever possible to avoid excessive root damage and allow for re-sprouting. [BIO-APM-20]

Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas containing sensitive habitat shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM. [BIO-APM-23]

Disturbed soils shall be re-vegetated with an appropriate seed mix that does not contain invasive, non-native plant species. [BIO-APM-25]

**B-2a** **Provide restoration/compensation for affected jurisdictional areas.** Impacts to areas under the jurisdiction of the ACOE, RWQCB, 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 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, RWQCB, 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, RWQCB, 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, RWQCB, and CDFG prior to initiating construction in jurisdictional areas.

All limits of construction shall be delineated with orange construction fencing. All stakes, flagging, or fencing shall be removed no later than 30 days after construction is complete. 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.

Any impacts associated with unauthorized activity (e.g., exceeding approved construction footprints) shall be mitigated as follows, unless otherwise directed by the ACOE, RWQCB, 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.

The applicant shall identify a qualified Habitat Restoration Specialist to be approved by the CPUC, BLM, ACOE, RWQCB, 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, RWQCB, 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. 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, RWQCB, CDFG, State Parks (for ABDSP restoration), and USDA Forest Service (for alternatives with restoration on National Forest lands).

A Habitat Management Plan shall be prepared by a biologist approved by the CPUC, BLM, ACOE, RWQCB, 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 off-site 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, off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- 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)

- Baseline biological data for all mitigation parcels
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-2a(CA) Provide restoration/compensation for affected jurisdictional areas.** Mitigation Measure B-2a(CA) is identical to Mitigation Measure B-2a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-2a(FT) Provide restoration/compensation for affected jurisdictional areas.** Mitigation Measure B-2a(FT) is identical to Mitigation Measure B-2a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-2a(LE) Provide restoration/compensation for affected jurisdictional areas.** Mitigation Measure B-2a(LE) is identical to Mitigation Measure B-2a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is. See Table D.2-7 for compensation ratios.

**B-2b Identify environmentally sensitive times and locations for tree trimming.** Environmentally sensitive tree trimming locations for the project would be identified in SDG&E’s existing vegetation management tree trim database utilized by tree trim contractors. The biological field construction monitor shall be contacted prior to trimming in environmentally sensitive areas. Whenever feasible, trees in environmentally sensitive areas, such as areas of riparian or native scrub vegetation, would be scheduled for trimming during non-sensitive (i.e., outside breeding or nesting) times. Where trees cannot be trimmed during non-sensitive times, SDG&E would perform a site survey, or more as appropriate, to determine presence or absence of endangered nesting bird species in riparian or native scrub vegetation. SDG&E would submit results of this survey to the USFWS and CDFG and consult on mitigation measures for potential impacts, prior to tree trimming in environmentally sensitive areas. However, this survey would not replace the need for SDG&E to

perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. Where riparian areas with over-story vegetation are crossed, tree removal (i.e., clear-cut) widths would be varied where feasible to minimize visual landscape contrast and to maintain habitat diversity at established wildlife corridor edges. Where tree removal widths cannot be varied, SDG&E would consult with the USFWS and CDFG to develop alternative tree removal options that could reasonably maintain edge diversity. [BIO-APM-16]

**B-2c** **Avoid sensitive features.** In areas designated as sensitive by SDG&E or the resource agencies, to the extent feasible structures and access roads would be designed to minimize impacts to sensitive features. These areas of sensitive features include but are not limited to high-value wildlife habitats, sensitive vegetation communities, and high value plant habitats, and/or to allow conductors to clearly span the features, within limits of standard structure design. If the sensitive features cannot be completely avoided, structures and access roads would be placed to minimize the disturbance to the extent feasible. When it is not feasible to avoid constructing poles or access roads in high value wildlife habitats, SDG&E would perform a site survey to determine presence or absence of endangered species in sensitive habitats. SDG&E would submit results of this survey to the USFWS and consult on mitigation measures for potential impacts, prior to constructing structures or access roads. However, this survey would not replace the need for SDG&E to perform detailed on-the-ground surveys as otherwise required by BIO-APM-1. Where it is not feasible for access roads to avoid sensitive water resource features, such as streambed crossings, such crossings would be built at right angles to the streambeds. Where such crossings cannot be made at right angles, roads constructed parallel to streambeds would be limited 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.” Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and RWQCB. [BIO-APM-18]

**B-3a** **Prepare and implement a Weed Control Plan.** 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). 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 public 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.

The Weed Control Plan shall include the following:

- A pre-construction weed inventory shall be conducted by surveying the entire ROW and areas immediately adjacent to the ROW 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 as being a priority for control and (2) aid and promote the

spread of wildfires (such as cheatgrass [*Bromus tectorum*], Saharan mustard [*Brassica tournefortii*] and medusa head [*Taeniatherum caput-medusae*]). These populations shall be mapped and described according to density and area covered. These plant species shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with the San Diego County Agriculture Commissioner's Office.

- 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). These plant species shall be treated prior to construction according to control methods and practices for invasive weed populations designed in consultation with Cal-IPC.
- 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, and Cal-IPC with the goal of controlling populations before they start producing seeds.

For the lifespan of the project, long-term measures to control the introduction and spread of noxious weeds in the project area shall be taken as follows.

- 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.
- 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.
- During project construction and operation/maintenance, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering all project areas. In addition, tools such as chainsaws, hand clippers, pruners, etc. shall be washed before and after entering all project areas. All washing shall take place where rinse water is collected and disposed of in either a sanitary sewer or landfill. 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 and State Parks (for weeds in ABDSP) for inspection at any time and shall be submitted to the CPUC on a monthly basis.

**B-3a(CA) Prepare and implement a Weed Control Plan.** Mitigation Measure B-3a(CA) is identical to Mitigation Measure B-3a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-3a(FT) Prepare and implement a Weed Control Plan.** Mitigation Measure B-3a(FT) is identical to Mitigation Measure B-3a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-3a(LE) Prepare and implement a Weed Control Plan.** Mitigation Measure B-3a(LE) is identical to Mitigation Measure B-3a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is.

**B-4a(LE) Erosion Control Plan.** A plan including the requirements defined in USFS-15 shall also be developed for non-Forest Service lands.

**B-4a(LE) Restrict the construction of access and spur roads. (Same as B-1i, see above.)**

**B-5a Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** A qualified biologist shall survey for special status plants in the spring prior to initiating construction activities in a given area. 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.

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.

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 off-site 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 by 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.

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. 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.

A Habitat Management Plan for any required, off-site 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 off-site mitigation parcels. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all off-site 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)
- Baseline biological data for all mitigation parcels

- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-5a(CA) Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-5a(CA) is identical to Mitigation Measure B-5a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-5a(FT) Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-5a(FT) is identical to Mitigation Measure B-5a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-5a(LE) Conduct rare plant surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-5a(LE) is identical to Mitigation Measure B-5a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-5b Delineate sensitive plant populations.** Prior to construction, plant population boundaries designated as sensitive by USFWS or CDFG and other resources designated sensitive by the applicant and resource agencies would be clearly delineated with clearly visible flagging or fencing, which shall remain in place for the duration of construction. Flagged areas would be avoided to the extent practicable during construction activities in that area. Where these areas cannot be avoided, focused surveys for covered plant species shall be performed in conformance with Mitigation Measure B-1d, and the responsible resource agency(s) would be consulted for appropriate mitigation and/or revegetation measures prior to disturbance. Notification of presence of any covered plant species to be removed in the work area would occur within ten (10) working days prior to Project activity, during which time the USFWS or CDFG may remove such plant(s) or recommend measures to minimize or reduce the take. If neither USFWS nor CDFG has removed such plant(s) within ten (10) working days following written notice, SDG&E may proceed with work and cause a take of such plant(s), if minimization measures are not implemented. [BIO-APM-8]

**B-5c No collection of plants or wildlife.** Plant or wildlife species may not be collected for pets or any other reason. [BIO-APM-13]

- B-5d Salvage sensitive species for replanting or transplanting.** Species identified as sensitive by the land managing agency shall be salvaged where avoidance is not feasible in accordance with State law. Generally, salvage may include removal and stockpiling for replanting on site, removal and transplanting out of surface disturbance area, removal and salvage by private individuals, and removal and salvage by commercial dealers, or any combination. [BIO-APM-22]
- B-6a Littering is not allowed.** Littering is not allowed. project personnel would not deposit or leave any food or waste in the project area, and no biodegradable or non-biodegradable debris would remain in the right-of-way following completion of construction. [BIO-APM-7]
- B-6b Survey areas for brush clearing.** 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 (March through August) without a pre-activity survey for vegetation containing active nests, burrows, or dens. The pre-activity survey performed by the on-site 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. [BIO-APM-9]
- B-6c Protect mammals and reptiles in excavated areas.** Construction holes left open over night shall be covered. Covers shall be secured in place nightly, prior to workers leaving the site, and shall be strong enough to prevent livestock or wildlife from falling through and into a hole. Holes and/or trenches shall be inspected prior to filling to ensure absence of mammals and reptiles. [BIO-APM-24]
- Excavations shall be sloped on one end to provide an escape route for small mammals and reptiles. [BIO-APM-26]
- B-6d Reduce construction night lighting on sensitive habitats.** Reduce construction night lighting on sensitive habitats. Exterior lighting within the project area adjacent to preserved habitat shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat to the maximum extent practicable. Vehicle traffic associated with project activities would be kept to a minimum volume and speed to prevent mortality of nocturnal wildlife species that may be moving about. [BIO-APM-29]
- B-7a Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** BIO-APM-14 shall be modified to ensure that all steep-walled trenches or excavations used during construction shall be covered at all times except when being actively utilized. If the trenches or excavations cannot be covered, exclusion fencing (i.e., silt fencing) shall be installed around the trench or excavation, or it shall be covered to prevent entrapment of wildlife. Open trenches, or other excavations that could entrap wildlife shall be inspected by the qualified biologist (see Mitigation Measure B-1c) a minimum of three times per day and immediately before backfilling. Furthermore, employees and contractors shall look under vehicles and

- equipment for the presence of wildlife before movement. If wildlife is observed, no vehicles or equipment would be moved until the animal has left voluntarily or is removed by the qualified biologist. Should a dead or injured listed species be found in a trench or excavation or anywhere in the construction zone or along an access road, the qualified biologist shall contact the CPUC, BLM, State Parks (for activities in ABDSP), USDA Forest Service (for alternatives with activities on National Forest lands), and the Wildlife Agencies within 48 hours of the finding. The qualified biologist shall report the species found, the location of the finding, the cause of death (if known), and shall submit a photograph and any other pertinent information.
- B-7a(CA) Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** Mitigation Measure B-7a(CA) is identical to Mitigation Measure B-7a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-7a(FT) Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** Mitigation Measure B-7a(FT) is identical to Mitigation Measure B-7a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-7a(LE) Cover all steep-walled trenches or excavations used during construction to prevent the entrapment of wildlife (e.g., reptiles and small mammals).** Mitigation Measure B-7a(LE) is identical to Mitigation Measure B-7a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** Mitigation for impacts to the FTHL shall follow all applicable measures in the Flat-Tailed Horned Lizard Rangewide 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.
- 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, although the ratios required for impacts to many of the desert vegetation communities for this project are actually higher due to their sensitivity. Furthermore, mitigation inside a MA shall be at a 3.5:1 ratio for temporary impacts and a 5.5:1 ratio for permanent impacts (some ratios for disturbed habitat, developed land, or agriculture, for example, are slightly lower). For the Proposed Project, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 1,673 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).

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:

- Legal descriptions of all acquired 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)
- Baseline biological data for all acquired FTHL habitat
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** For the FTHL Eastern Alternative, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 23.5 acres.

**B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** For the West of Dunaway Alternative, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 211.5 acres.

**B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** For the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 125.8 acres.

**B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** For the Overhead 500 kV ABDSP Within Existing ROW Alternative, the required mitigation for impacts to the FTHL includes 44.3 acres (if off-site acquisition is the method of compensation).

**B-7b Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** For the I-8 Alternative, the required mitigation for FTHL impacts (if off-site acquisition is the method of compensation) is 213.6 acres.

**B-7b(CA) Implement avoidance/mitigation/compensation according to the Flat-Tailed Horned Lizard Rangewide Management Strategy.** Mitigation Measure B-7b(CA) is identical to Mitigation Measure B-7b for the Proposed Project with the exception that CPUC shall be replaced with “Lead Agencies”, and State Parks and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** With regard to timing of activities, construction and maintenance activities in bighorn sheep habitat shall be limited to outside the lambing season and the period of greatest water need. The lambing season is February through August. The period of greatest water need is May through September.

To help reconnect PBS subpopulations and at least partially offset impacts to the overall population of PBS caused by the project, the applicant shall:

- fund construction of an overpass or tunnel to facilitate PBS movement across SR78 at a location determined by the USFWS (in coordination with State Parks and CDFG)
- fund removal of tamarisk and fences and install and maintain water sources at locations determined by the USFWS (in coordination with State Parks and CDFG)
- 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.

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 on-site restoration and off-site purchase) for temporary impacts with PBS critical habitat or other habitat acceptable to the Wildlife Agencies, BLM, and State Parks. For the Proposed Project, the required mitigation for PBS impacts includes off-site purchase of 271.1 acres and on-site restoration of 55.8 acres.

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:

- Legal descriptions of all acquired PBS habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired PBS habitat
- 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

- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** For the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, the required mitigation for PBS impacts includes off-site purchase of 24.8 acres and on-site restoration of 3.4 acres.

**B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** For the Overhead 500 kV ABDSP Within Existing ROW Alternative, the required mitigation for PBS impacts includes off-site purchase of 263.4 acres and on-site restoration of 45.7 acres.

**B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** For the I-8 Alternative, the required mitigation for PBS impacts includes off-site purchase of 246.2 acres and on-site restoration of 25.4 acres. All other PBS mitigation described in Mitigation Measure B-7c for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.

**B-7c Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** For the BCD Alternative, the required mitigation for PBS impacts includes off-site purchase of 16.3 acres and on-site restoration of 1.2 acres. All other PBS mitigation described in Mitigation Measure B-7c for the Proposed Project (Section D.2.11) is also required for the BCD Alternative.

**B-7c(CA) Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** Mitigation Measure B-7c(CA) is identical to B-7c for the SRPL Proposed Project except that CPUC shall be replaced with “Lead Agencies”, and State Parks and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-7c(CA) Minimize impacts to Peninsular bighorn sheep and provide compensation for loss of critical habitat.** This measure shall be tailored so as to be applicable in Mexico and acceptable to Mexican authorities.

**B-7d Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/compensation strategies.** A survey shall be conducted within 30 days prior to the initiation of construction (from MP 0 through MP 68 for the Proposed Project) 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.

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).

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.

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.

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.

For the Proposed Project, the required mitigation for impacts to the burrowing owl based on survey results include acquiring and preserving 9.75 acres of occupied habitat; or acquiring and preserving 13 acres of unoccupied habitat contiguous with occupied habitat; or acquiring and preserving 19.5 acres of suitable, unoccupied habitat. 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.

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:

- Legal descriptions of all acquired burrowing owl habitat approved by the CPUC, BLM, Wildlife Agencies, and State Parks (for mitigation parcels to be part of ABDSP)
- Baseline biological data for all acquired burrowing owl habitat
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-7d Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the FTHL Eastern Alternative the required mitigation for impacts to the burrowing owl based on survey results include acquiring and preserving 19.5 acres of occupied habitat; or acquiring and preserving 26 acres of unoccupied habitat contiguous with occupied habitat; or acquiring and preserving 39 acres of suitable, unoccupied habitat.

**B-7d(CA) Conduct burrowing owl surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7d(CA) is identical to Mitigation Measure B-7d for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies” and State Parks shall be replaced with “other agencies that have jurisdiction over the project”.

**B-7e Conduct least Bell’s vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** 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.

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 one week prior to initiating activities in an area.

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.

If/when an active nest is located, a 300-foot no-construction buffer zone (USFWS, 2007b) shall be established around each nest site. 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.

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 off-site 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 on-site restoration and 2:1 off-site acquisition and preservation of occupied habitat and/or designated critical habitat.

For the Proposed Project, the required mitigation for least Bell's vireo occupied habitat is on-site restoration of two acres and off-site acquisition and preservation of 15.4 acres of least Bell's vireo occupied habitat. For the Proposed Project, the required mitigation for southwestern willow flycatcher occupied habitat is on-site restoration of 0.4 acres and off-site acquisition and preservation of 4.4 acres of southwestern willow flycatcher occupied habitat. For the Proposed Project, the required mitigation for southwestern willow flycatcher designated critical habitat is on-site restoration of 0.88 acres and off-site acquisition of 2.3 acres of southwestern willow flycatcher designated critical habitat. 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).

A Habitat Management Plan for any required, off-site 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:

- Legal descriptions of all acquired 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)
- Baseline biological data for all least Bell's vireo or southwestern willow flycatcher habitat
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-7e Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, the required mitigation for impacts to least Bell's vireo occupied habitat include 1.36 acres of off-site acquisition and preservation of occupied habitat and on-site restoration of 0.29 acres.

**B-7e Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, the required mitigation for impacts to southwestern willow flycatcher occupied habitat include 1.36 acres of off-site acquisition and preservation of occupied habitat and on-site restoration of 0.29 acres.

**B-7e Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Overhead 500 kV ABDSP Within Existing ROW Alternative, the required mitigation for the least Bell's vireo includes on-site restoration of 2.5 acres and off-site acquisition and preservation of 7.1 acres of occupied least Bell's vireo habitat.

**B-7e Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel SR79 All Underground Alternative, the required mitigation for the least Bell's vireo

- includes 0.4 acres of on-site restoration and 3.2 acres of acquisition and preservation of least Bell's vireo occupied habitat.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel SR79 All Underground Alternative, the required mitigation for the southwestern willow flycatcher includes 0.4 acres of on-site restoration and 3.2 acres of acquisition and preservation of southwestern willow flycatcher occupied habitat.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the I-8 Alternative, the required mitigation for habitat assumed to be occupied by least Bell's vireo includes 6.0 acres of on-site restoration and 12.0 acres of off-site acquisition and preservation of occupied least Bell's vireo habitat. All other least Bell's vireo mitigation described in Mitigation Measure B-7e for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the I-8 Alternative, the required mitigation for habitat assumed to be occupied by southwestern willow flycatcher includes 6.0 acres of on-site restoration and 12.0 acres of off-site acquisition and preservation of occupied southwestern willow flycatcher habitat. All other southwestern willow flycatcher mitigation described in Mitigation Measure B-7e for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the South Buckman Springs Option, the required mitigation for habitat assumed to be occupied by least Bell's vireo includes 0.4 acres of on-site restoration and 2.9 acres of off-site acquisition and preservation of occupied vireo habitat. All other least Bell's vireo mitigation described in Mitigation Measure B-7e for the Proposed Project (Section D.2.11) is also required for the South Buckman Springs Option.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the South Buckman Springs Option, the required mitigation for habitat assumed to be occupied by southwestern willow flycatcher includes 0.4 acres of on-site restoration and 2.9 acres of off-site acquisition and preservation of occupied flycatcher habitat. All other southwestern willow flycatcher mitigation described in Mitigation Measure B-7e for the Proposed Project (Section D.2.11) is also required for the South Buckman Springs Option.
- B-7e** **Conduct least Bell's vireo and southwestern willow flycatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the Modified Route D Alternative, the required mitigation for habitat occupied by least Bell's vireo includes 0.2 acres of on-site restoration and 1.3 acres of off-site acquisition and preservation of occupied least Bell's vireo habitat. All other least Bell's vireo mitigation described in Mitigation Measure B-7e for the Proposed Project (Section D.2.11) is also required for this alternative.
- B-7e(FT)** **Conduct least Bell's vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7e(FT) is identical to Mitigation Measure B-7e for the Proposed Project with the

exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-7e(LE) Conduct least Bell’s vireo and southwestern willow flycatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7e(LE) is identical to Mitigation Measure B-7e for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is where applicable.

**B-7f Minimize potential impacts to desert pupfish habitat.** The qualified biologist (see Mitigation Measure B-1c) shall be present to monitor construction adjacent to desert pupfish critical habitat. Monitoring entails communicating with contractors, taking daily notes, and ensuring that the requirements of the APMs and mitigation measures are being met to ensure that construction and maintenance activities avoid San Felipe Creek and that activities do not result in sedimentation of the creek. If an accident occurs and the creek is impacted, the qualified biologist shall immediately notify the CPUC, BLM, and Wildlife Agencies and shall stop work in the area of impact per Mitigation Measure B-1c. Reinitiation of work following a stop work order shall only occur per Mitigation Measure B-1c. The qualified biologist shall inform all construction and maintenance crews of the sensitivity of the pupfish habitat and the necessity to avoid impacts to it.

**B-7f(CA) Minimize potential impacts to desert pupfish habitat.** Mitigation Measure B-7f(CA) is identical to Mitigation Measure B-7f for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies” and State Parks shall be replaced with “other agencies that have jurisdiction over the project”.

**B-7g Implement appropriate avoidance/minimization strategies for desert tortoise.** To the extent possible, construction activities shall be scheduled when tortoises are inactive (November 1 – March 15). A clearance survey for the desert tortoise shall be conducted within 24 hours before construction ground disturbance and following the guidelines established by The Desert Tortoise Council (1999) as follows.

- Burrows within 100 feet of the construction zone shall be flagged by a person authorized by the USFWS to handle desert tortoises so that the qualified biologist (see Mitigation Measure B-1c) would be able to more easily locate them during construction. The qualified biologist shall be on site to monitor all construction that occurs in the vicinity of flagged burrows and to watch for desert tortoise.
- All desert tortoise burrows or pallets in the construction area shall be excavated by the USFWS-authorized biologist.
- Desert tortoises that are found above ground during construction and need to be moved from potential harm shall be placed in the shade of a shrub by the USFWS-authorized biologist. All desert tortoises removed from burrows shall be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. Tortoises shall not be placed more than 1,000 feet from where they were found. If an existing burrow is unavailable, the authorized biologist shall construct or direct the construction of a burrow of similar size, shape, depth, and orientation as the original

burrow. Desert tortoises moved during inactive periods would be monitored for at least two days after placement in the new burrows to ensure their safety. The authorized biologist shall be allowed some judgment and discretion to ensure that the survival of the desert tortoise is likely.

- If a tortoise is located in a construction or maintenance area and is not moving, adjacent activities would be halted until the authorized biologist is able to move it out of harm's way.
- A worker bonus program shall be implemented that would reward construction/maintenance staff who spot a tortoise within the work area and, without touching or disturbing the animal, notify the authorized biologist for action.
- Any routes of travel that require construction or modification, or any additional work areas, shall be surveyed for tortoises by the authorized biologist before modification or construction of the route or construction or use of a new work area.
- Trench segments or other excavations shall be provided with tortoise escape ramps at one-mile intervals. All excavations shall be inspected for tortoises three times daily and before backfilling.
- Any time a vehicle is parked, the ground around and under the vehicle shall be inspected for desert tortoises before the vehicle is moved. If a desert tortoise is observed, it shall be left to move on its own. If this does not occur within 15 minutes, the authorized biologist shall remove and relocate the tortoise.
- Construction pipe, culverts, or similar structures with a diameter of three inches or greater that are stored on site for one or more nights shall be inspected for tortoises before the material is moved, buried, or capped. As an alternative, all such structures may be capped before being stored on the construction site.
- All construction and maintenance activities in desert tortoise habitat shall be conducted between dawn and dusk.
- GPS locations of tortoises will be reported to the CPUC, BLM, State Parks (if in ABDSP), and the Wildlife Agencies.

**B-7g(CA) Implement appropriate avoidance/minimization strategies for desert tortoise.** Mitigation Measure B-7g(CA) is identical to Mitigation Measure B-7g for the Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies" and State Parks shall be replaced with "other agencies that have jurisdiction over the project".

**B-7h Implement appropriate avoidance/minimization strategies for eagle nests.** No construction or maintenance activities shall occur within 4,000 feet of an eagle nest during the eagle breeding season (December through June).

**B-7i Conduct quino checkerspot butterfly surveys, and implement appropriate avoidance/minimization/compensation strategies.** A biologist permitted by the USFWS shall determine suitable habitat areas (i.e., non-excluded areas per the 2002 USFWS protocol; USFWS, 2002b) within any designated USFWS QCB survey area (e.g., Survey Area 2) that would be impacted by project construction.

A pre-construction, USFWS protocol presence/absence survey for the adult QCB shall be conducted within all suitable habitat for this species in the construction zone within any designated USFWS QCB survey area. The survey shall be conducted in a year where the

QCB is readily observed at USFWS QCB-monitored reference sites to determine what areas are occupied by the QCB (i.e., any suitable habitat within 1 km of a current QCB sighting is considered occupied) and what areas are not occupied. The USFWS permitted biologist shall record the precise locations of QCB larval host plants within the construction zone (and 10 meters beyond) using GPS technology.

If the protocol pre-construction survey is conclusive for determining absence of the QCB, then areas without the butterfly would not require mitigation.

If the protocol pre-construction survey is not conclusive for determining QCB absence (due to limited detectability per the 2002 protocol, for example), or if a survey is not conducted, then all suitable habitat areas would be considered potentially occupied and would require mitigation as follows. If construction occurs outside the larvae and adult activity season (June 1 through October 15) and stays at least 10 meters away from all host plant locations, then no mitigation is required (USFWS, 2007d). If construction occurs between October 16 and May 31 or within 10 meters of host plant locations, then (1) temporary impacts to the habitat shall be mitigated through on-site restoration of temporarily disturbed areas and off-site acquisition and preservation of an equal sized area of QCB-occupied habitat (a 2:1 mitigation ratio) and (2) permanent impacts shall be mitigated through off-site acquisition and preservation of QCB-occupied habitat at a 2:1 ratio (i.e., two acres acquired for each acre lost). Any acquired habitat shall be approved by the CPUC, BLM, Wildlife Agencies, State Parks (for mitigation land to be part of ABDSP), and USDA Forest Service (for mitigation parcels to be National Forest lands). A USFWS permitted biologist shall be present during all construction activities in potentially occupied habitat to monitor and assist the construction crews to ensure impacts occur only as allowed. This same mitigation shall apply where the protocol pre-construction survey was conclusive for determining that the QCB is present.

If host plant mapping is not possible during the pre-construction survey (e.g., drought prevents plant germination), then all suitable habitat (i.e., non-excluded habitat per the 2002 protocol) shall be considered occupied by the QCB and mitigated under the assumption that the QCB is present.

A Habitat Management Plan for any required, off-site 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 QCB 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 QCB habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired QCB 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)
- Baseline biological data for all QCB habitat

- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

**B-7i(CA) Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7i(CA) is identical to B-7i for the SRPL Proposed Project except that CPUC shall be replaced with “Lead Agencies”, and State Parks and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. Additionally, for the Jacumba Substation, impacts to QCB designated critical habitat shall be mitigated with QCB designated critical habitat.

**B-7i(FT) Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7i(FT) is identical to Mitigation Measure B-7i for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-7i(LE) Conduct quino checkerspot butterfly surveys and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7i(LE) is identical to Mitigation Measure B-7i for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”, and CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The applicant shall provide compensation for temporary and permanent loss of critical habitat at a ratio of 2:1. The total required mitigation shall include off-site purchase and preservation of 16 acres of QCB critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.

**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.

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.

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.

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.

Mitigation for the loss of arroyo toad-occupied habitat shall be implemented as follows. Permanent impacts to occupied, arroyo toad breeding habitat shall include off-site acquisition and preservation of occupied arroyo toad breeding habitat at a 3:1 ratio. Permanent impacts to occupied, upland burrowing habitat shall include off-site acquisition and preservation of occupied, upland burrowing habitat at a 2:1 ratio. Temporary impacts to occupied breeding habitat shall include 1:1 on-site restoration and 2:1 off-site acquisition and preservation of occupied breeding habitat. Temporary impacts to occupied, upland burrowing habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied, upland burrowing habitat. For the Proposed Project, the required mitigation for arroyo toad occupied habitat includes 8.7 acres of on-site restoration and 15.5 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.2 acres of breeding habitat and 15.3 acres of 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).

A Habitat Management Plan for any required, off-site 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:

- Legal descriptions of all acquired arroyo toad habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all arroyo toad habitat
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

- B-7j**     **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel Existing ROW Alternative, the required mitigation for arroyo toad occupied habitat includes five acres of on-site restoration and 24.6 acres of off-site acquisition and preservation of occupied toad upland burrowing habitat.
- B-7j**     **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel Partial Underground Alternative, the required mitigation for arroyo toad occupied habitat includes 0.6 acres of on-site restoration and 3.4 acres of off-site acquisition and preservation of occupied toad upland burrowing habitat.
- B-7j**     **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel SR79 All Underground Alternative, the required mitigation for arroyo toad occupied habitat includes 2.9 acres of on-site restoration and 22.4 acres of off-site acquisition and preservation of occupied toad habitat consisting of 1.3 acres of breeding habitat and 21.1 acres of upland burrowing habitat.
- B-7j**     **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the I-8 Alternative, the required mitigation for arroyo toad occupied habitat includes 13.0 acres of on-site restoration and 69.8 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.6 acres of breeding habitat and 69.2 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.
- B-7j**     **Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** The required mitigation for arroyo toad occupied habitat includes 2.8 acres of on-site restoration and 18.8 acres of off-site acquisition and preservation of occu-

- pied toad habitat consisting of 0.6 acres of breeding habitat and 18.2 acres of upland burrowing habitat for the Buckman Springs Underground Option. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the Buckman Springs Underground Option.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the West Buckman Springs Option, the required mitigation for arroyo toad occupied habitat includes 4.4 acres of on-site restoration and 13.1 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.3 acres of breeding habitat and 12.8 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the West Buckman Springs Option.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the South Buckman Springs Option, the required mitigation for arroyo toad occupied habitat includes 3.1 acres of on-site restoration and 24.5 acres of off-site acquisition and preservation of occupied toad habitat consisting of 3.0 acres of breeding habitat and 21.5 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the South Buckman Springs Option.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the BCD Alternative, the required mitigation for arroyo toad occupied habitat includes 5.8 acres of on-site restoration and 27.8 acres of off-site acquisition and preservation of occupied toad upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the BCD Alternative.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** The required mitigation for arroyo toad occupied habitat includes 7.7 acres of on-site restoration and 30.8 acres of off-site acquisition and preservation of occupied toad habitat consisting of 2.0 acre of breeding habitat and 28.8 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the BCD South Option.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Route D Alternative, the required mitigation for arroyo toad occupied habitat includes 7.5 acres of on-site restoration and 46.6 acres of off-site acquisition and preservation of occupied toad habitat consisting of 0.1 acres of breeding habitat and 46.5 acres of upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the Route D Alternative.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Modified Route D Alternative, the required mitigation for arroyo toad occupied habitat includes 19.0 acres of on-site restoration and 22.0 acres of off-site acquisition and preservation of occupied toad upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for this alternative.
- B-7j Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Star Valley Option, the required mitigation for arroyo toad

- occupied habitat includes 1.4 acres of on-site restoration and 8.6 acres of off-site acquisition and preservation of occupied toad upland burrowing habitat. All other arroyo toad mitigation described in Mitigation Measure B-7j for the Proposed Project (Section D.2.11) is also required for the Star Valley Option.
- B-7j(FT) Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7j(FT) is identical to Mitigation Measure B-7j for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-7j(LE) Conduct arroyo toad surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7j(LE) is identical to Mitigation Measure B-7j for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-7k Conduct Stephens’ kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** A pre-construction, USFWS protocol survey shall be conducted for the SKR by a USFWS permitted biologist in the construction zone 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.

Where the SKR is present (or if no pre-construction survey is conducted, and the SKR is assumed to be present), prior to vegetation clearing or other ground-disturbing activities, the construction zone shall be fenced to provide a barrier that excludes the SKR from the construction zone and delineates the work area. A USFWS permitted SKR biologist shall be present when the fence is installed to minimize habitat disturbance.

The fence shall be constructed of ¼-inch gauge hardware cloth backed by silt fencing or other material if approved by the USFWS. No gaps greater than 0.5 inches shall be allowed within the exclusion fencing. The qualified biologist (see Mitigation Measure B-1c) or other designated personnel shall check the fencing at the end of each work day. If gaps greater than 0.5-inch are detected, they shall be repaired immediately. The exclusion fencing shall remain in place and be maintained without gaps until project construction is completed.

Immediately preceding vegetation clearing or other ground-disturbing activities within the fenced areas, live-trapping of the SKR shall be conducted by the USFWS permitted biologist for a minimum of five nights. Trapping locations shall be selected at the discretion of the biologist in coordination with the USFWS. Trapped animals shall be released outside the fenced area in appropriate habitat. Results of the trapping effort shall be provided to the CPUC, BLM, and Wildlife Agencies within 24 hours of trapping completion.

Any pipes stored during construction shall be capped prior to the end of each work day to prevent SKR from entering the pipes.

Mitigation for the loss of occupied SKR habitat shall be implemented as follows. Permanent impacts to occupied habitat shall include off-site acquisition and preservation of occupied habitat at a 2:1 ratio. Temporary impacts to occupied habitat shall include 1:1 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat. For the Proposed Project, the required mitigation for SKR occupied habitat includes on-site restoration of

38.6 acres and off-site acquisition and preservation of 69.6 acres. Any acquired SKR habitat shall be approved by the CPUC, BLM, and Wildlife Agencies.

A Habitat Management Plan for any required, off-site mitigation shall be prepared by a biologist approved by the CPUC, BLM, and Wildlife Agencies. The Habitat Management Plan must be approved in writing by the CPUC, BLM, and Wildlife Agencies prior to the initiation of any activities which may impact (directly or indirectly) the SKR or its habitat. The applicant shall work with the CPUC, BLM, and Wildlife Agencies until a plan is approved by all. The Habitat Management Plan shall provide direction for the preservation and in-perpetuity management of all acquired SKR habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired SKR habitat approved by the CPUC, BLM, and Wildlife Agencies
- Baseline biological data for all SKR habitat
- Designation of a land management entity approved by the CPUC, BLM, and Wildlife Agencies to provide in-perpetuity management
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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, and Wildlife Agencies.

**B-7k** **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Partial Underground 230 kV ABDSP SR78 to S2 Alternative, the required mitigation for impacts to SKR occupied habitat include 16 acres of off-site acquisition and preservation of occupied habitat and on-site restoration of four acres.

**B-7k** **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel Existing ROW Alternative, the required mitigation for SKR occupied habitat includes on-site restoration of 0.5 acres and off-site acquisition and preservation of 1.78 acres.

**B-7k** **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Santa Ysabel Partial Underground Alternative, the required mitigation for SKR occupied habitat includes on-site restoration of 0.6 acres and off-site acquisition and preservation of two acres.

**B-7k** **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Mesa Grande Alternative, the required mitigation for the SKR includes 14.4 acres of on-site restoration and 33 acres of acquisition and preservation of occupied habitat.

- B-7k**      **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Top of the World Substation Alternative, the required mitigation for impacts to SKR include 5.1 acres of on-site restoration and 174.5 acres of off-site acquisition and preservation of occupied habitat.
- B-7k(FT)**   **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7k(FT) is identical to Mitigation Measure B-7k for the Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies", and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with "other agencies with jurisdiction over the project".
- B-7k(LE)**   **Conduct Stephens' kangaroo rat surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-7k(LE) is identical to Mitigation Measure B-7k for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies", and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with "other agencies with jurisdiction over the project". For the Lake-Pendleton 500 kV New Transmission Line, applicant shall provide 7.6 acres of on-site restoration and 8.4 acres of acquisition and preservation of SKR occupied habitat within or contiguous with the Lake Mathews-Estelle Mountain Core Reserve for impacts to the Lake Mathews-Estelle Mountain Core Reserve.
- B-71**      **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** 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.

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.

A USFWS permitted biologist shall survey for coastal California gnatcatchers within one week prior to initiating activities in an area. 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.

If/when an active nest is located, a 300-foot no-construction buffer (USFWS, 2007b) shall be established around each nest site. 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.

Mitigation for the loss of coastal California gnatcatcher-occupied habitat shall be implemented as follows. Permanent impacts to occupied habitat shall include off-site 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 on-site restoration and 1:1 off-site acquisition and preservation of occupied habitat.

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 off-site acquisition and preservation of designated critical habitat at a 2:1 ratio. Temporary impacts to unoccupied designated critical habitat shall include 1:1 on-site restoration.

For the Proposed Project, the required mitigation for the loss of occupied gnatcatcher habitat includes 4.9 acres of on-site restoration and 7.0 acres of off-site acquisition and preservation of occupied gnatcatcher habitat. Furthermore, the required mitigation for the loss of unoccupied designated critical habitat includes 1.9 acres of on-site restoration and off-site acquisition and preservation of 3.0 acres of designated critical habitat for the gnatcatcher. 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).

A Habitat Management Plan for any required, off-site 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:

- Legal descriptions of all acquired coastal California gnatcatcher habitat approved by the CPUC, BLM, Wildlife Agencies, and USDA Forest Service (for mitigation parcels to be National Forest lands)
- Baseline biological data for all coastal California gnatcatcher habitat
- 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
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan
- 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)
- 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).

- B-71**      **Conduct coastal California gnatcatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the I-8 Alternative, the required mitigation for the loss of coastal California gnatcatcher occupied habitat includes 3.5 acres of on-site restoration and 9.0 acres off-site acquisition and preservation of occupied habitat for the gnatcatcher. The required mitigation for the loss of designated gnatcatcher critical habitat includes 7.5 acres of on-site restoration and 4.0 acres off-site acquisition and preservation of designated critical habitat for the gnatcatcher (1.6 acres of occupied critical habitat and 2.4 acres of unoccupied critical habitat). All other coastal California gnatcatcher mitigation described in Mitigation Measure B-71 for the Proposed Project (Section D.2.11) is also required for the I-8 Alternative.
- B-71**      **Conduct coastal California gnatcatcher surveys and implement appropriate avoidance/minimization/compensation strategies.** For the Route D Alternative, the required mitigation for the loss of coastal California gnatcatcher designated critical habitat includes 3.3 acres of on-site restoration and 27.0 acres off-site acquisition and preservation of designated critical habitat for the gnatcatcher. All other coastal California gnatcatcher mitigation described in Mitigation Measure B-71 for the Proposed Project (Section D.2.11) is also required for the Route D Alternative.
- B-71**      **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the Oak Hollow Road Underground Alternative, the required mitigation for the loss of unoccupied designated gnatcatcher critical habitat includes 1.2 acres of on-site restoration and 4.4 acres off-site acquisition and preservation of designated critical habitat for the gnatcatcher.
- B-71**      **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** For the San Vicente Road Transition Alternative, the required mitigation for the loss of unoccupied designated gnatcatcher critical habitat includes 0.1 acres of on-site restoration and 0.4 acres off-site acquisition and preservation of designated critical habitat for the gnatcatcher.
- B-71(FT)**      **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-71(FT) is identical to Mitigation Measure B-71 for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-71(LE)**      **Conduct coastal California gnatcatcher surveys, and implement appropriate avoidance/minimization/compensation strategies.** Mitigation Measure B-71(LE) is identical to Mitigation Measure B-71 for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The applicant shall provide compensation for the permanent loss of gnatcatcher critical habitat at a ratio of 2:1 through acquisition and preservation of gnatcatcher critical habitat or other habitat acceptable to USFWS. The applicant shall also provide on-site restoration of all and temporary loss disturbance of critical habitat at a ratio of 1:1. The mitigation shall include off-site purchase and preservation of gnatcatcher critical habitat or other habitat acceptable to USFWS. The remainder of the mitigation shall be implemented as is applicable.

**B-7m Implement mitigation measures/best management practices from BLM's Draft EIS for the Truckhaven Geothermal Leasing Area.** The following BMPs and other mitigation measures shall be included in the project's Plans of Operation.

- Before new drilling pads or other land disturbance is conducted, surveys of the affected areas would be conducted to identify any special status species populations to be avoided in the area.
- Fund and implement a FTHL protective signing program along all roads within the project area.
- Surface all new access roads (with asphalt, gravel, chemical or physical stabilizers or other surfacing acceptable to the authorized officer) within the project area to reduce the amount of time that FTHLs may spend on these access roads.
- Agree that the BLM reserves the right to require additional mitigation measures should monitoring of the FTHL populations within the Truckhaven area by the BLM shows an appreciable decrease in relative abundance which is not correlated with decreases in neighboring, undeveloped sections, or if impacts unacceptable to the authorized officer are observed to either the FTHL population or its habitat.

**B-7n Minimize potential impacts to unarmored threespine stickleback habitat.** The qualified biologist (see Mitigation Measure B-1c) shall be present during construction adjacent to San Felipe Creek and Sentenac Cienega to ensure that adjacent activities do not result in sedimentation to these wetlands. If an accident occurs, and the creek or cienega is impacted, the qualified biologist shall immediately notify the CPUC, BLM, State Parks, and Wildlife Agencies and shall stop work in the area of impact per Mitigation Measure B-1c. Reinitiation of work following a stop work order shall only occur per Mitigation Measure B-1c. The qualified biologist shall inform all construction and maintenance crews of the sensitivity of the stickleback habitat and the necessity to avoid impacts to it.

**B-7o Conduct yellow-billed cuckoo surveys and implement appropriate avoidance/minimization/compensation strategies.** All grading or brushing taking place within riparian habitat of the western yellow-billed cuckoo shall be conducted from October through February, which is outside the cuckoo's breeding season.

When conducting all other project activities during the breeding season of March through September, within 500 feet (USFWS, 2007b) of habitat in which the cuckoo is known to occur or has potential to occur, a biologist permitted by the USFWS shall survey for the cuckoo within one week prior to initiating activities in an area.

If the cuckoo is present, a permitted biologist shall survey for nesting cuckoos 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.

If/when an active nest is located, a 300-foot no construction buffer zone (USFWS, 2007b) shall be established around each nest site. 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 cuckoo-occupied 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 project 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 cuckoos 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.

Mitigation for the loss of western yellow-billed cuckoo-occupied habitat shall occur at the ratios for comparable habitat shown in Table D.2-12.

A Habitat Management Plan for any required, off-site 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 western yellow-billed cuckoo 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 cuckoo habitat. The Habitat Management Plan shall include, but shall not be limited to:

- Legal descriptions of all acquired western yellow-billed cuckoo 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);
- Baseline biological data for all western yellow-billed cuckoo habitat;
- 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;
- A Property Analysis Record prepared by the designated land management entity that explains the amount of funding required to implement the Habitat Management Plan;
- 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
- 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).

**B-8a Conduct pre-construction surveys and monitoring for breeding birds.** 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 removal or trimming shall take place between September 16 and December 31 (i.e., outside the raptor breeding season of January 1 through September 15).

If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside the general avian breeding season, then pre-construction surveys for bird species' nests shall be conducted by a qualified biologist within 300 feet of the construction zone no more than seven days prior to the initiation of construction that would occur between February 15 and September 15.

If project construction (not vegetation clearing or tree trimming/removal) cannot occur completely outside the raptor breeding season, then pre-construction surveys for active raptor nests shall be conducted by a qualified biologist within 500 feet of the construction zone no more than seven days prior to the initiation of construction that would occur between January 1 and September 15.

If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is 1) located at least 500 feet from raptor nests (USFWS, 2007b), 2) located at least 160 to 250 feet from occupied burrowing owl burrows (CDFG, 1995; see Mitigation Measure B-7d), 3) located at least 300 feet from all other bird nests, and 4) noise levels do not exceed 60 dB(A) hourly Leq at the edge of nesting territories (American Institute of Physics, 2005) as determined by a qualified biologist in coordination with a qualified acoustician. In the case of raptors (except the burrowing owl), the noise level restriction stated above does not apply (USFWS, 2007b). Otherwise, if the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall 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 nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to the CPUC, BLM, Wildlife Agencies, State Parks (for construction in ABDSP), and USDA Forest Service (for alternatives with construction on National Forest lands).

**B-8a(CA) Conduct pre-construction surveys and monitoring for breeding birds.** Mitigation Measure B-8a(CA) is identical to Mitigation Measure B-8a for the Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies", and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with "other agencies with jurisdiction over the project".

**B-8a(FT) Conduct pre-construction surveys and monitoring for breeding birds.** Mitigation Measure B-8a(FT) is identical to Mitigation Measure B-8a for the Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies", and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with "other agencies with jurisdiction over the project".

**B-8a(LE) Conduct pre-construction surveys and monitoring for breeding birds.** Mitigation Measure B-8a(LE) is identical to Mitigation Measure B-8a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with "Lead Agencies", and State Parks, USDA Forest Service, USFWS, CDFG, and/or Wildlife Agencies shall be replaced

- with “other agencies with jurisdiction over the project”. CPUC and BLM shall be replaced with “Lead Agencies,” and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is.
- B-8b**     **Removal of raptor nests.** 1. Prior to construction, SDG&E shall remove all existing raptor nests from structures that would be affected by project construction. 2. Removal of nests shall occur outside the raptor breeding season (January to July). 3. If it is necessary to remove an existing raptor nest during the breeding season, a qualified biologist shall survey the nest prior to removal to determine if the nest is active. A nest would be considered active if it contains eggs or fledglings. If the nest does not contain eggs or nestlings and is inactive, it shall be removed promptly. If a nest is determined to be active, the nest shall not be removed and the biologist shall monitor the nest to ensure nesting activities/breeding activities are not disrupted. If the biological monitor determines that project activities are disturbing or disrupting nesting activities, the monitor shall make feasible recommendations to reduce the noise and/or disturbance in the vicinity of the nest. [BIO-APM-27]
- B-9a**     **Survey for bat nursery colonies.** A CDFG-approved biologist shall conduct a habitat assessment for bat nursery colonies prior to any construction activity. Then, the approved biologist shall conduct a survey for bat nursery colonies or signs of such colonies prior to construction. Direct impacts to a nursery colony site shall not be allowed, and approach of, or entrance to, an active nursery colony site shall be prohibited. Before any blasting or drilling in the vicinity of a nursery colony site, the CDFG-approved biologist shall work with the construction crew to devise and implement methods to minimize potential indirect impacts to the nursery colony site from falling rock or substantial vibration (while a nursery colony is active). The methods shall include an option to halt any construction activity that would cause falling rock, substantial vibration impacts, or any other construction-related impact to a nursery colony as determined by the approved biologist, until the colony is inactive. Should falling rock block the entrance to a nursery colony site, the contractor shall work with the approved biologist to re-open an entrance to the site.
- B-10a**    **Utilize collision-reducing techniques in installation of transmission lines.** 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).
- 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 to the maximum degree feasible, aligned with existing geographic features or tree lines, and located parallel (rather than perpendicular) to prevailing wind patterns.
  - Overhead lines that are located in highly utilized avian flight paths (from MP 50 through MP 88 for the SRPL Proposed Project) 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.
  - 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 to develop alternate collision protection measures.

- 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.

**B-10a Utilize collision-reducing techniques in installation of transmission lines.** The highly utilized avian flight path for this alternative includes the entire 23.3-mile-long alternative. All other required mitigation that is part of Mitigation Measure B-10a for the Proposed Project shall also apply to this mitigation. (Overhead 500 kV ABDSP within Existing ROW Alternative)

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

**B-10a(CA) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(CA) is identical to Mitigation Measure B-10a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. (Stirling Energy Systems)

**B-10a(CA) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(CA) is identical to Mitigation Measure B-10a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. The highly utilized avian flight path in the second bullet for this Project is from MP IID 18 through MP IID 26.3. (IID Transmission System Upgrades)

**B-10a(CA) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(CA) is identical to Mitigation Measure B-10a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”. Since the project is near the Pacific Flyway, all overhead transmission lines associated with the project shall be marked (see second bullet of Mitigation Measure B-10a). (Esmeralda–San Felipe Geothermal Project)

- B-10a(CA) Utilize collision-reducing techniques in installation of transmission lines.** There is no known highly utilized avian flight path; therefore, no marking of the overhead lines is required. (SCE La Rumorosa Wind Project)
- B-10a(FT) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(FT) is identical to Mitigation Measure B-10a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.
- B-10a(LE) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(LE) is identical to Mitigation Measure B-10a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The area requiring markers for the Lake-Pendleton 500 kV New Transmission Line includes where the transmission line would cross Temescal Wash near Lee Lake, Cow Canyon, Horsethief Canyon, McVicker Canyon, Leach Canyon, Los Alamos Canyon, and Tenaja, and San Mateo Creeks. The remainder of the mitigation shall be implemented as is.
- B-10a(LE) Utilize collision-reducing techniques in installation of transmission lines.** Mitigation Measure B-10a(LE) is modified only to include “other agencies with jurisdiction over the project.” The area requiring markers for the Talega-Escondido upgrades includes where the transmission line would cross Cristianitos Creek, San Mateo Creek, and Roblar Creek on Camp Pendleton; the Santa Margarita River along the northeastern portion; and Gomez Creek, San Luis Rey River, and Keys Creek. The remainder of the mitigation shall be implemented as originally defined.
- B-10b Structures shall be constructed to conform to “Suggested Practices for Raptor Protection on Power Lines.”** Structures shall be constructed to conform to “Suggested Practices for Raptor Protection on Power Lines” (Raptor Research Foundation, Inc. 1981), to minimize impacts to raptors. [BIO-APM-21]
- B-11a Prepare and implement a raven control plan.** A Raven Control Plan shall be prepared and implemented for the I-8 Alternative where it occurs in FTHL MAs and FTHL habitat outside of 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. SDG&E shall obtain approval of this plan from the USFWS prior to the start of construction. SDG&E shall work with the USFWS until approval of a plan is obtained.
- B-11a(CA) Prepare and implement a Raven Control Plan.** Mitigation Measure B-11a(CA) is identical to Mitigation Measure B-11a for the Proposed Project with the exception that the Raven Control Plan shall be implemented from MP IID 0 through MP IID 26.3 for this Project.

**B-11a(CA) Prepare and implement a Raven Control Plan.** Mitigation Measure B-11a(CA) is identical to Mitigation Measure B-11a for the Proposed Project with the exception that the Raven Control Plan shall be prepared and implemented where the project occurs in FTHL RA.

**B-11b Prepare and implement a Raven Control Plan for ABDSP.** The applicant shall work with ABDSP to prepare and implement a Raven Control Plan to deter ravens from perching and nesting on new transmission towers in ABDSP. These deterrents could include the placement of perching and nesting prevention devices that would not cause harm to birds, such as those manufactured by Prommel Enterprises, Inc. (ZENAdesign.com), Mission Environmental (www.missionenviro.co.za), or Kaddas Enterprises, Inc. (www.kaddas.com). The applicant shall obtain approval of this plan from the USFWS and State Parks prior to the start of construction. The applicant shall work with the USFWS and State Parks until approval of a plan is obtained.

**B-12a Conduct maintenance activities outside the general avian breeding season. 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.**

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).

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).

**Animal Burrows/Dens.** 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-12a(CA) Conduct maintenance activities outside the general avian breeding season.** Mitigation Measure B-12a(CA) is identical to Mitigation Measure B-12a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-12a(FT) Conduct maintenance activities outside the general avian breeding season.** Mitigation Measure B-12a(FT) is identical to Mitigation Measure B-12a for the Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies”, and State Parks, USDA Forest Service, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project”.

**B-12a(LE) Conduct maintenance activities outside the general avian breeding season.** Mitigation Measure B-12a(LE) is identical to Mitigation Measure B-12a for the SRPL Proposed Project with the exception that CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” CPUC and BLM shall be replaced with “Lead Agencies,” State Parks, and/or Wildlife Agencies shall be replaced with “other agencies with jurisdiction over the project.” The remainder of the mitigation shall be implemented as is.

**B-12b Conduct maintenance when arroyo toads are least active.** 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-12c Maintain access roads and clear vegetation in quino checkerspot butterfly habitat.** If access roads in QCB-occupied or potentially occupied habitat (see Impact B-7J and Mitigation Measure B-7i) are maintained (i.e., regraded) 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 regrading 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-12d Protect wildlife.** 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.

**B-13a Implement measures to reduce avian impacts from turbine activities:** This mitigation measure includes the following.

- Increase ground to rotor clearance. Turbine tower heights shall be at least 55 meters at sites where the FAA will allow that height.
- Wherever feasible, turbines shall not be sited on or immediately adjacent to the upwind sides of ridge crests.

- Turbine construction shall minimize cutting into hill slopes in an attempt to achieve smooth rounded terrain, rather than sudden berms or cuts, to potentially reduce prey abundance.
- Rocks unearthed during the excavation process shall be used during construction of foundations or hauled off site and disposed of properly, and not be left in piles near turbines.
- Discourage small mammals and reptiles from burrowing under or near turbine bases by placing gravel at least 5 feet around each tower foundation.
- The wind component developer shall not participate in rodent control programs on leased lands and will discourage landowners from using poisoning for rodent control in the vicinity of the project.
- Only un-guyed meteorological towers shall be constructed for the wind project.
- Prior to obtaining a grading or building permit, the project applicant shall submit a final site plan for review and approval by the County Zoning Administrator and BLM demonstrating compliance with the standards described in this document.

A scientifically defensible monitoring program shall be implemented to estimate the avian fatality rates from the new turbines and important covariates such as prey base and avian use. The following shall also be implemented.

- Standardized fatality monitoring and avian use and behavior studies shall be conducted for a minimum of three years.
- A technical advisory committee shall be formed to oversee the program and propose additional mitigation and/or additional monitoring depending on the results of the monitoring program.
- Should additional mitigation be necessary, potential measures may include off-site mitigation.

**B-13a(LR) Implement measures to reduce avian impacts from turbine activities.** This mitigation measure includes the following:

- Increase ground to rotor clearance. Turbine tower heights shall be at least 55 meters at sites where will allow that height.
- Wherever feasible, turbines shall not be sited on or immediately adjacent to the upwind sides of ridge crests.
- Turbine construction shall minimize cutting into hill slopes in an attempt to achieve smooth rounded terrain, rather than sudden berms or cuts, to potentially reduce prey abundance.
- Rocks unearthed during the excavation process shall be used during construction of foundations or hauled off site and disposed of properly, and not be left in piles near turbines.
- Discourage small mammals and reptiles from burrowing under or near turbine bases by placing gravel at least 5 feet around each tower foundation.

- The RWD project developer shall not participate in rodent control programs on leased lands and will discourage landowners from using poisoning for rodent control in the vicinity of the project.
- Only un-guyed meteorological towers shall be constructed for the wind project.

A scientifically defensible monitoring program shall be implemented to estimate the avian fatality rates from the new turbines and important covariates such as prey base and avian use. The following shall also be implemented.

- Standardized fatality monitoring and avian use and behavior studies shall be conducted for a minimum of three years.
- A technical advisory committee shall be formed to oversee the program and propose additional mitigation and/or additional monitoring depending on the results of the monitoring program.
- Should additional mitigation be necessary, potential measures may include off-site mitigation.

**B-14a** **Implement a scientifically defensible monitoring program to estimate bat fatality rates from new turbines.** The following shall also be implemented.

- Standardized fatality monitoring and bat use and behavior studies shall be conducted for a minimum of three years.
- A technical advisory committee shall be formed to oversee the program and propose additional mitigation and/or additional monitoring depending on the results of the monitoring program.
- Should additional mitigation be necessary, potential measures may include off-site mitigation.

**B-15a** **Permanently close access roads along the transmission alignment.** Monitor and manage the road closures to assure there is no public access to prevent an increase in disturbance to mountain lions and to prevent the introduction and spread of non-native plant species.

**B-15b** **Develop and implement an Invasive Weed Management Plan.** Develop and implement a vegetation and invasive weed management plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas during construction and over the term of any license issued for the project. The management plan shall include a pre-construction weed inventory; specific weed abatement methods, practices, and treatment timing; and long-term measures to control the introduction and spread of noxious weeds.

**B-17a** **Pay the Stephens' kangaroo rat fee assessment per the current Riverside County rate.** The applicant shall provide funding for impacts to the SKR Fee Assessment Area.

## Visual Resources

- V-1a Reduce visibility of construction activities and equipment.** Substation construction sites and all staging and material and equipment storage areas including storage sites for excavated materials, and helicopter fly yards shall be appropriately located away from areas of high public visibility. If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the BLM and CPUC for review and approval at least 60 days prior to the start of construction. Where the project crosses lands administered by other public agencies (e.g., Forest Service, Anza-Borrego Desert State Park), construction plans shall also be submitted to those agencies for review and approval within the same 60-day timeframe.
- V-1b Reduce construction night lighting impacts.** SDG&E shall design and install all lighting at construction and storage yards and staging areas and fly yards 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. SDG&E shall submit a Construction Lighting Mitigation Plan to the BLM (only if on BLM lands), Forest Service (only if on National Forest lands), Anza-Borrego Desert State Park (for Park lands) and CPUC (for all areas) for review and approval at least 90 days prior to the start of construction or the ordering of any exterior lighting fixtures or components, whichever comes first. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the reviewing agency. The Plan shall include but is not necessarily limited to the following:
- 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
  - All lighting shall be of minimum necessary brightness consistent with worker safety
  - High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.
- V-1c Prohibit construction marking of natural features.** No paint or permanent discoloring agents will be applied to rocks or vegetation to indicate survey or construction activity limits. [VR-APM-4]
- V-1c Screen the power plant construction areas.** (New In-Area All Source Generation Alternative; same as V-1d, see below.)
- V-1d Screen the power plant construction areas.** The project site, including the staging area and material storage areas, shall be screened from public views using the existing topography and landforms to the extent feasible.
- V-2a Reduce in-line views of land scars.** Construct access or spur roads at appropriate angles from the originating, primary travel facilities to minimize extended, in-line views of newly graded terrain. Contour grading should be used where possible to better blend graded

- surfaces with existing terrain. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM, as well as the Forest Service and Anza-Borrego Desert State Park (as appropriate), for review and approval at least 60 days prior to the start of construction.
- V-2b Reduce visual contrast from unnatural vegetation lines.** 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&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&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.
- V-2c Reduce color contrast of land scars on non-Forest lands.** 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&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. 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.
- V-2d Construction by helicopter.** In those areas where long-term land-scarring and vegetation clearance impacts would be visible to sensitive public viewing locations, or where construction would occur on slopes over 15 percent, SDG&E will consult with the Authorized Officer and appropriate land management agency, on a site-by-site basis regarding the use of helicopter construction techniques and the prohibition of access and spur roads. Agency consultations must be conducted and approvals received at least 120 days prior to the start of construction.
- V-2e Minimize vegetation removal.** Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas containing sensitive habitat shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this APM. [BIO-APM-23]
- V-2f Reduce land scarring and vegetation clearance impacts on USFS-administered lands.** 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)

**V-2g Reduce land scarring and vegetation clearance impacts on USFS-administered lands.** (Interstate 8 Alternative; Same as V-2f, see above.)

**V-3a Reduce visual contrast of towers and conductors.** 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 facilities:

- All new conductors and re-conducted spans are to be non-specular in design in order to reduce conductor visibility and visual contrast.
- No new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from locations immediately downhill of the structures.

**V-3b Use non-specular design to reduce conductor visibility and visual contrast.** SDG&E will use dulled metal finish transmission structures and non-specular conductors in visually sensitive areas including the ABDSP, new ROW in the Central Link and Peñasquitos Junction to Peñasquitos Substation in the Coastal Link. [VR-APM-2]

**V-3c Coordinate with affected property owners on structure siting.** Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence where possible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts. [VR-APM-5]

**V-7a Reduce visual contrast associated with ancillary facilities.** SDG&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&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include:

- 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
- 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)
- Two sets of brochures and/or color chips for each proposed color
- A detailed schedule for completion of the treatment

A procedure to ensure proper treatment maintenance for the life of the project.

SDG&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&E receives notification of approval of the Treatment Plan by the BLM and CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the BLM and CPUC that all buildings and structures are ready for inspection.

**V-7b Screen ancillary facilities.** SDG&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&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&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- An 11" x 17" color simulation of the proposed landscaping at 5 years
- A plan view to scale depicting the project and the location of screening elements
- 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.

SDG&E shall complete installation of the screening prior to the start of project operation. SDG&E shall notify the BLM and CPUC within seven days after completing installation of the screening, that the screening components are ready for inspection.

**V-8a Structure design consultation in ABDSP.** SDG&E shall consult with Anza-Borrego Desert State Park regarding structure design, height, color, and placement for any facilities to be placed within the State Park. Structure designs shall be submitted to ABDSP for approval at least 90 days prior to (a) ordering any components to be manufactured, or (b) construction of any of the ancillary facility components to be placed in the Park, whichever comes first. If ABDSP notifies SDG&E that revisions to structure design are needed, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised design(s).

**V-21a Reduce night lighting impacts.** SDG&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. SDG&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&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:

- 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
- All lighting shall be of minimum necessary brightness consistent with worker safety
- High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.

**V-25a Structure design and placement guidance.** The following design and placement measures shall be applied to all new 230 kV structures and conductors in the Coastal Link in order to reduce the degree of visual contrast caused by the new facilities:

- All new structures are to as closely as possible match the design of the existing structures with which they will be seen.

- All new structures are to be paired as closely as possible with the existing structures in the corridor in order to avoid or reduce the number of off-setting (from existing structures) tower placements.
- All new structures are to match the heights of the existing structures to the extent possible as dictated by variation in terrain.
- All new spans are to match existing conductor spans as closely as possible in order to avoid or reduce the occurrence of unnecessary visual complexity associated with asynchronous conductor spans.

**V-27a Relocate of Cable Pole C32 to the north side of Chicarita Substation.** Require the relocation of Cable Pole C32 approximately 0.12 miles north to the northwest corner of Chicarita Substation, as shown in Figure D.3-25C.

**V-42a Reduce visibility of the transition structures by relocating the structures.** In order to substantially reduce the visibility of the transition structures in the vicinity of Mesa Grande Road, the structures shall be relocated approximately 0.5 miles further west along the Proposed Route to a location immediately adjacent to an existing ranch road. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.

**V-45a Prepare and implement Scenery Conservation Plan.** 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:

- **Power Line and Support Towers.** Transmission lines shall be non-specular (non-reflective) 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.
- **Distance Zones.** Support towers within approximately one mile of sensitive primary viewpoints and without a backdrop, should be a monopole design with a simple, clean and less industrial appearance. Support towers viewed beyond one mile from sensitive viewpoints or only at distance, should be lattice towers.
- **Vegetation Clearing.** 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.
- **Roads.** 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.

- **Structures.** 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.
- **Evaluation of Effects.** 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.
- **Off-Site Mitigation.** 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.

**V-52a**     **Reduce visibility of the 500 kV transmission line connection to the Top of the World Alternative Substation site.** In order to substantially reduce the visibility of the 500 kV transmission line connection to the Top of the World Substation site, reroute the 500 kV line due west after crossing San Felipe Road, and then turning south, west, and south again over the primary ridgeline to access the substation site from the north rather than the east as currently proposed. Figure D.3-46 provides a map of the mitigation route. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.

**V-53a**     **Reduce visibility of the 230 kV transmission line connection existing the Top of the World Alternative Substation to the west.** In order to eliminate the visibility of the 230 kV transmission line connection to the Top of the World Substation, reroute the 230 kV line due north after exiting the substation to re-cross the central ridge, then turning northwest to intersect and then follow the Proposed Project route on the north side of the ridge (see Figure D.3-46). SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.

**V-66a**     **Reduce structural prominence and visual contrast associated with the Alpine Road transition structures.** In order to reduce the structural prominence and visual contrast associated with the Alpine Road transition structures, the structures shall be moved further northwest on Alpine Road as shown in Figure E.1.3-11C. From here, the line will span I-8 to a new location further west than the Alpine Road transition location described for the I-8 Alternative (see Figure E.1.3-11C). This measure will result in the relocation of the transition structures to a slightly less prominent location and will allow for a better backdrop for both the transition structures and the first tangent structure on the north side of I-8. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.

- V-68a Eliminate skylining of ridgeline towers and conductors.** In order to eliminate the skylining of ridgeline towers and conductors, the ridgeline towers shall be relocated to elevations sufficiently low on the ridge to eliminate structure skylining when viewed from Moreno Boulevard, SR67, and residences on the slopes west of SR67. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 120 days prior to the start of construction.
- V-69a Reduce visibility of the West Buckman Springs Option by rerouting the alternative to Bear Valley Road.** In order to substantially reduce the visibility of the West Buckman Springs Option, reroute the West Buckman Springs Option to follow Bear Valley Road to a new point of intersection with the I-8 Route, as shown in Figure E.1.3-14C. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and USFS for review and approval at least 120 days prior to the start of construction.
- V-NW9a Develop and implement architectural treatment for the power plant.** A public input process shall be used to determine specific architectural treatments recommended by the community and local decisionmakers, and the power plant shall incorporate the treatments.
- V-NW9b Develop and implement a Landscape Concept Plan.** A Landscape Concept Plan shall be developed by the Applicant at least 60 days before the start of construction. Plant material shall include use native materials, and non-native plant material where appropriate and necessary (only if native materials are considered essential by the Applicant, and approved by the agencies with jurisdiction), to blend and screen elements of the power plant.
- V-NW10a Reduce visibility of the South Bay Replacement Project.** The Project Proponent shall submit to the CEC a South Bay Replacement Project (SBRP) Screening Plan that reduces visibility of the SBRP when viewed from the Brentwood Park mobile home community. The Project Proponent shall plant appropriate vegetation species along the western border of the mobile home community in order to intersect sightlines from Brentwood Park to the west toward the SBRP. The Project Proponent shall submit the Plan to the CEC for review and approval at least 90 days prior to installing the landscape screening. If the CEC notifies the Project Proponent that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the Project Proponent shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:
- 11"x17" color simulations of the proposed landscaping at 5 years when viewed from Key Viewpoint 72 (AFC KOP No. 5).
  - Plan view to scale depicting the project and the location of screening elements.
  - 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.
- The Project Proponent shall complete installation of the screening prior to the start of project operation. The Project Proponent shall notify the CEC within seven days after completing installation of the screening, that the screening components are ready for inspection.
- V-NW12a Site the power plant to take advantage of topography for screening.** The power plant infrastructure shall be arranged on the site in such a way as to make maximum use of the visual screening afforded by site topography. Specifically, the power plant and cooling towers will be located in the western portion of Site 1B/1C.

**V-NW12b Reduce visual plumes from power plant.** The power plant shall be operated to minimize visible plumes according to the following plume abatement standards: no plume of any height shall be visible above the top of a HRSG stack at any time; no visible plume from the evaporative cooling tower shall extend more than 20 feet above the top of the cooling tower at any time; and no plume from the evaporative cooling tower shall be visible for more than 1.0 hour during any 24-hour period.

**V-NW13a Reduce peaker visibility.** The Project Proponent shall submit to the agency with jurisdiction (Agency) a Peaker Screening Plan that reduces visibility of the Miramar Peaker when viewed from Miramar Road. The Project Proponent shall plant appropriate vegetation species north of the peaker site in order to intersect sightlines from Miramar Road to the south toward the peaker. The Project Proponent shall submit the Plan to the Agency for review and approval at least 90 days prior to installing the landscape screening. If the Agency notifies the Project Proponent that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the Project Proponent shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to:

- 11"x17" color simulations of the proposed landscaping at five (5) years when viewed from Key Viewpoint 75.
- Plan view to scale depicting the project and the location of screening elements.
- 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.

The Project Proponent shall complete installation of the screening prior to the start of project operation. The Project Proponent shall notify the Agency within seven days after completing installation of the screening, that the screening components are ready for inspection.

**V-S-1a Implement Condition No. 37—Scenery Conservation (on NFS lands)**

**V-S-8a Relocate 500 kV transmission lines away from Tenaja Trailhead and guard station.**

**V-S-14a Upper Reservoir Revegetation—Newly planted vegetation (per Mitigation Measure USFS-37) shall be fertilized, irrigated, and maintained by the Applicant.** Vegetation survival shall be guaranteed by the Applicant for the life of the LEAPS project. Upon abandonment of the reservoir, dam, pumping facility, the Applicant shall restore the landscape to near-natural conditions, as directed by the CNF. The Applicant shall provide a bond to the CNF sufficient for removal of facilities and restoration of the landscape.

## Land Use

**L-1a Prepare Construction Notification Plan.** Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the CPUC and the BLM for approval. The Plan shall identify the procedures SDG&E will use to inform property and business owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The plan shall address at a minimum the following components:

- **Public notice mailer.** A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties, retail and commercial businesses, wilderness and recreation facilities, and public facilities (e.g., schools and memorial parks). The notice shall state the type of construction activities that will be conducted, and the location and duration of construction. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of the right-of-way, any property owners or tenants that could be impacted by construction activities and specific public agencies with facilities that could be impacted by construction. If construction delays of more than seven days occur, an additional notice shall be prepared and distributed.
- **Newspaper advertisements.** Fifteen days prior to construction, within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information on the public liaison person and hotline identified below. If construction is delayed for more than seven days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction.
- **Public venue notices.** Thirty days prior to construction, notice of construction shall be posted at public venues such as trail crossings, rest stops, desert centers, resource management offices (e.g., Bureau of Land Management field offices, Anza-Borrego Desert State Park offices and campgrounds, Cleveland National Forest Ranger Stations), and other public venues to inform residents and visitors to the purpose and schedule of construction activities. For public trail closures, SDG&E shall post information on the trail detour at applicable resource management offices and post the notice on the trail within two miles of the detour. For recreation facilities, the notice shall be posted along the access routes to known recreational destinations that would be restricted, blocked, or detoured and shall provide information on alternative recreation areas that may be used during the closure of these facilities.
- **Public liaison person and toll-free information hotline.** SDG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.

- L-1b**      **Coordinate with the Imperial Irrigation District regarding canal crossings.** At least 60 days prior to construction, SDG&E shall coordinate with the IID and the BLM El Centro Field Office, and shall obtain a license from the IID for the areas where the project crosses the IID canals. SDG&E shall submit the approved license to the CPUC and the BLM 30 days prior to the start of construction activities. The license or license attachments must identify specific locations where the crossings are permitted and any conditions of approval that have been agreed to by SDG&E, the IID, and the BLM El Centro Field Office.
- L-1c**      **Coordinate with MCAS Miramar.** At least 90 days before construction, SDG&E shall provide all required project engineering details to MCAS Miramar for review and approval. Information provided shall include access roads to be used, expanded, or added. SDG&E shall provide the CPUC and BLM with evidence of its coordination with MCAS Miramar at least 60 days prior to the start of construction.
- When any towers are to be removed on MCAS Miramar, all portions of the towers/poles shall be removed. Cutting poles and leaving buried portions is not acceptable on MCAS Miramar lands.
- L-1d**      **Provide advance notice and appoint public affairs officer.** SDG&E will provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and will appoint a public affairs officer to address public concerns or questions. [APM LU-2]
- L-1e**      **Notify property owners and provide access.** To facilitate access to properties obstructed by construction activities, SDG&E will notify property owners and tenants in advance of construction activities. SDG&E will provide alternative access if feasible. [APM LU-4]
- L-1f**      **Flag ROW boundary and environmentally sensitive areas.** The limits of construction within the ROW will typically be predetermined, with activity restricted to and confined within those limits. The ROW boundary and limits of construction activity will be flagged in environmentally sensitive areas to alert construction personnel that disturbance to those areas will be minimized or avoided. [APM LU-6]
- L-1g**      **Coordinate with MCB Camp Pendleton.** At least 90 days before construction, SDG&E shall provide all required project engineering details to MCB Camp Pendleton for review and approval. Information provided shall include access roads to be used, expanded, or added. SDG&E shall provide the CPUC and BLM with evidence of its coordination with MCB Camp Pendleton at least 60 days prior to the start of construction. When any towers are to be removed on MCB Camp Pendleton, all portions of the towers/poles shall be removed. Cutting poles and leaving buried portions is not acceptable on MCB Camp Pendleton lands
- L-1h**      **Consult with Department of the Navy.** During construction and operation of the project transmission line upgrade, the Applicant shall consult with the Department of the Navy to ensure that construction activities do not interfere with military activities at MCB Camp Pendleton.
- L-1h**      **Relocate Butterfield Elementary Visual and Performing Arts School.** In coordination with the Lake Elsinore Unified School District, the proponent shall relocate the Butterfield Elementary Visual and Performing Arts School to an acceptable temporary location for the duration of construction of the Santa Rosa Powerhouse, Midpoint Substation, and water conduits within 1,000 feet of the school. Relocation site and plans shall be subject to approval of the district.

**L-2b** **Revise project elements to minimize land use conflicts.** At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned.

SDG&E shall provide a written report to the CPUC and BLM providing evidence of the notice provided to landowners and copies of any responses to the notice within 30 days of the notice closing data for responses. SDG&E shall also identify in the documentation submitted to CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a Variance (as defined in Section I, Mitigation Monitoring). Where a reroute is proposed, the CPUC and BLM will review and agree to accept or reject individual reroutes. CPUC and BLM also may recommend compromise reroutes for any of the parcels for which responses were provided to SDG&E in a timely fashion.

The following specific modifications shall be developed by SDG&E, following the procedures defined above:

- **Interstate 8 Alternative: MP I8-87 through I8-89.5, High Meadow Ranch.** The initial alignment shall be shifted approximately 200 feet to the west, downslope, in order to minimize visual effects of the towers on the development. See Figure Ap.11C-56 for map of this area.
- **Interstate 8 Alternative: MP I8-92 to I8-92.7, Private home.** The alignment shall be shifted to the east side of Highway 67, to a point just south of the Preserve parking lot, where the alignment would cross Highway 67 to join the Proposed Project route. See Figure Ap.11C-57 for map of this area.
- **Interstate 8 Alternative: MP I8-46.8 to I8-48, Planned development at Crestwood Road/I-8:** Tower locations, access roads, and staging areas shall be refined to minimize effects on the planned development. See Figure Ap.11C-46 and 47 for a map of this area.

**L-2b** **Revise project elements to minimize land use conflicts.** Specific location for this alternative:

- **Santa Ysabel All Underground Alternative:** South of MP SYAU-8.4. Based on landowner preference, SDG&E shall relocate transition to overhead at MP SYAU-8.4 and follow existing ROW rather than continue underground in existing dirt road to MP SYAU-9.2. See Figure AP.11C-21 for map of this area.

## Wilderness and Recreation

**WR-1a Coordinate construction schedule and activities with the authorized officer for the recreation area.** No less than 60 days prior to construction, SDG&E shall coordinate construction activities and the project construction schedule with the authorized officer for the recreation areas listed below. SDG&E shall schedule construction activities to avoid heavy recreational use periods in coordination with and at the discretion of the authorized officer. SDG&E shall locate construction equipment to avoid temporary preclusion of recreation areas in accordance with the recommendation of the authorized officer. SDG&E shall document its coordination efforts with the authorized officer and provide this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

- BLM Dunaway Camp
- Juan Bautista de Anza National Historic Trail
- ABDSP (Open Camping, Tamarisk Grove Campground, Yaqui Well Campground, Cactus Loop Trail, Yaqui Well Nature Trail, Bill Kenyon Overlook Trail, Trans-County Trail, Vallecito Mountain Wilderness Area Pinyon Ridge Wilderness Area, Grapevine Mountain Wilderness Area)
- Desert Tours (California Overland, La Casa del Zorro, Sky Trail)
- California State Scenic Highway 78
- Trans-County Trail
- Pacific Crest National Scenic Trail
- Santa Ysabel Open Space Preserve
- San Dieguito River Park
- Mt. Gower Open Space Preserve
- San Vicente Resort and Golf Club
- Barnett Ranch Open Space Preserve
- Boulder Oaks Open Space Preserve
- San Vicente Highlands Open Space Preserve
- Sycamore Canyon Open Space Preserve
- Los Peñasquitos Canyon Preserve
- Mission Trails Regional Park

**WR-1b Provide temporary detours for trail users.** No less than 60 days prior to construction, SDG&E shall coordinate with the authorized officer of the trails listed below to establish temporary detours of the trails to avoid construction area hazards, if the trail is deemed unsafe to use during construction. Should new trail segments be constructed as detours during construction, the temporary new trail segments would be sited to avoid sensitive resources, in coordination with the authorized officer of the trail or recreation area, and would be restored to pre-construction condition by SDG&E when SRPL construction is complete, if required by the authorized officer of the trail or recreation area. SDG&E shall post a public notice of the temporary trail closure and information on the trail detour. SDG&E shall document its coordination efforts with the authorized officer and submit this documentation to the CPUC, BLM, and affected park jurisdictions at least 30 days prior to construction.

- Juan Bautista de Anza National Historic Trail
- ABDSP Trails (Cactus Loop Trail, Yaqui Well Nature Trail, Bill Kenyon Overlook Trail)
- Trans-County Trail
- Pacific Crest National Scenic Trail
- San Dieguito River Park Trails
- Mission Trails Regional Park (Fortuna, Rim, and Quarry Loop Trails)

**WR-1c**     **Coordinate with local agencies to identify alternative recreation areas.** SDG&E shall coordinate with the authorized officer for the applicable federal, State, or local parks and recreational facilities listed below at least 60 days before construction in order to identify alternative recreation facilities that may be used by the public during construction. SDG&E shall post a public notice at recreation facilities that are to be closed or where access would be limited during project construction. SDG&E shall document its coordination efforts with the parks and recreation departments and provide this documentation to the CPUC, BLM, and all affected park jurisdictions 30 days prior to construction.

- BLM Dunaway Camp
- Juan Bautista de Anza National Historic Trail
- ABDSP (Open Camping, Tamarisk Grove Campground, Yaqui Well Campground, Cactus Loop Trail, Yaqui Well Nature Trail, Bill Kenyon Overlook Trail, Vallecito Mountains Wilderness Area, Pinyon Ridge Wilderness Area, Grapevine Mountain Wilderness Area)
- Desert Tours (California Overland, La Casa del Zorro, Sky Trail)
- California State Scenic Highway 78
- Trans-County Trail
- Pacific Crest National Scenic Trail
- Santa Ysabel Open Space Preserve
- San Dieguito River Park
- Mt. Gower Open Space Preserve
- San Vicente Resort and Golf Club
- Barnett Ranch Open Space Preserve
- Boulder Oaks Open Space Preserve
- San Vicente Highlands Open Space Preserve
- Sycamore Canyon Open Space Preserve
- Los Peñasquitos Canyon Preserve
- Mission Trails Regional Park

**WR-2a**     **Coordinate tower and road locations with the authorized officer for the recreation area.** (BCD Alternative; Same as WR-3a, see below.)

**WR-3a**     **Coordinate tower and road locations with the authorized officer for the recreation area.** Where the Proposed Project crosses the recreation areas listed below, SDG&E shall coordinate with the authorized officer for the recreation area to determine specific tower site and spur road locations in order to minimize impacts to recreational resources. In consultation with the authorized officer of the trail or recreation area, access roads shall not be located on trails (i.e., PCT, Trans-County Trail) unless the authorized officer determines that the construction of new access roads would result in greater impacts than modifying the trail for use as an access road. This coordination shall occur no less than 60 days prior to the start of construction. SDG&E shall document its coordination with the authorized officer and shall submit this documentation to the CPUC, BLM, and ABDSP, at least 30 days prior to project construction.

- Juan Bautista de Anza National Historic Trail
- Anza-Borrego Desert State Park
- Trans-County Trail
- Pacific Crest National Scenic Trail
- San Dieguito River Park
- Mt. Gower Open Space Preserve

- WR-3b Provide funding for campground facility modification.** Mitigation for impacts to the recreational quality of Cibbets Flat Campground is discussed in Section E.2.5, Wilderness and Recreation.
- WR-3b Provide funding for planning and physically establishing replacement campsites and facilities.** Should Tamarisk Grove Campground or other established recreation facility in ABDSP be closed by CDPR due to public safety concerns or a significant reduction of recreational value resulting from construction of the Proposed Project or alternative, then SDG&E shall provide full funding for planning and developing replacement campsites and facilities at a location in ABDSP identified by CDPR that are of comparable quality and capacity to the closed campsite and/or facility. SDG&E shall document its payment to and coordination efforts with CDPR officials and provide this documentation to the CPUC, BLM at least 30 days prior to initiating any SRPL construction that would affect the subject park facility.
- WR-3c Construct transmission line underground to avoid hand gliding areas.** This would place 2.1 miles of the potential 500kV route underground through the hang gliding area along South Main Divide Road.
- WR-4a Purchase additional State wilderness acreage.** As partial compensation for declassification of existing wilderness within ABDSP, following construction, SDG&E shall acquire lands as partial compensation for the loss of wilderness within ABDSP. The land to be acquired shall be at least five and one half times greater than the acreage of land removed from currently designated wilderness areas. The specific location of the acquired land shall be determined by CDPR officials. Acquired lands must be consistent with the definition of wilderness as defined in Public Resources Code §§ 5019.68, 5093.33(c). The lands shall be transferred to the State within 6 months after the start of operation and shall be administered by CDPR.
- WR-4b Minimize area of project facilities within wilderness lands.** Segments of the Proposed Project ROW and temporary pull sites located within State wilderness shall be minimized by relocating project components to fully use existing ROW or locate project facilities outside of State wilderness lands, where technically feasible. Modifications to the proposed SRPL ROW and pull sites in wilderness areas are presented in Table D.5-3. Figures D.5-9a and D.5-9b show additional detail maps comparing proposed and modified ROW segments. At least 60 days prior to construction, SDG&E shall prepare and submit design plans for the modified SRPL facilities to the CPUC, BLM, and ABDSP for review and approval. Should complete relocation outside of wilderness lands be infeasible due to engineering or environmental constraints, a full feasibility analysis shall be prepared and submitted to CPUC, BLM, and ABDSP with adequate justification for review and approval.
- WR-LR1a Coordinate construction schedule and activities with the authorized officer for the recreation area.** No less than 60 days prior to construction, the applicant shall coordinate construction activities and the project construction schedule with the authorized officer for the recreation areas in the La Rumorosa region of Tecate, Baja California. The applicant shall schedule construction activities to avoid heavy recreational use periods in coordination with and at the discretion of the authorized officer. The applicant shall locate construction equipment to avoid temporary preclusion of recreation areas in accordance with the recommendation of the authorized officer. The applicant shall document its coordination efforts with the authorized officer and make this documentation available to the authorized officer for this region at least 30 days prior to construction.

**WR-LR1c Coordinate with local agencies to identify alternative recreation areas.** The applicant shall coordinate with the authorized officer for the applicable federal, State, or local parks and recreational facilities in the La Rumorosa region of Tecate, Baja California at least 60 days before construction in order to identify alternative recreation facilities that may be used by the public during construction. The applicant shall post a public notice at recreation facilities that are to be closed or where access would be limited during project construction. The applicant shall document its coordination efforts with the parks and recreation departments and make this documentation available to the authorized officer for this region 30 days prior to construction.

## Agriculture

- AG-1a Avoid interference with agricultural operations.** The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.
- AG-1b Restore compacted soil.** The Applicant shall restore soils compacted 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, or other suitable restoration methods.
- AG-1c Coordinate with grazing operators.** SDG&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:
- Interference with access to water (e.g., provide alternate methods for livestock access to water)
  - Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
  - 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)
  - 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)
- AG-1d Compensate farmers for lost crops along ROW.** 1. Farmers will be compensated for losses of crops along ROW based upon a professional appraisal. 2. Construction activities in croplands will be scheduled to minimize or avoid planting, growing, and harvesting seasons to the extent feasible. [LU-APM-3]
- AG-2a Avoid interference with agricultural equipment.**
- AG-3a Coordinate with dairy operators.** SDG&E shall coordinate with dairy operators to ensure that agricultural productivity and animal welfare are maintained during project operation (e.g., maintenance activities) to the maximum extent feasible. Coordination efforts shall address issues including, but not necessarily limited to:
- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
  - Impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)
- AG-3b Consult with and inform aerial applicators.** The Applicant shall consult with landowners and the Imperial County Farm Bureau to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the Imperial County Farm Bureau, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

- AG-3c Survey for apiaries and inform owners.** The Applicant shall perform a survey of the approved route and identify all apiaries within 1,000 feet of the transmission line. The Applicant shall notify all apiary owners at least 60 days prior to energizing the line that their apiaries are within a zone of potential transmission line effect, and shall advise them to relocate their hives to avoid any potential effects. The survey results and notification process shall be documented to the CPUC and BLM at least 30 days before the line is energized.
- AG-3e Install project facilities along borders.** To the extent feasible, project facilities would be installed along the edges or borders of private property, open space parks, and recreation areas. When it is not feasible to locate project facilities along property borders, SDG&E would consult with affected property owners to identify facility locations that create the least potential impact to property and are mutually acceptable to property owners to the extent feasible. SDG&E would pay just compensation to affected property owners based on the facility locations identified by SDG&E. [LU-APM-7]
- AG-3f Match structure locations.** SDG&E will match structure locations with existing transmission facilities where feasible and appropriate. [LU-APM-10]

## Cultural Resources

**C-1a Inventory and evaluate cultural resources in Final APE.** Prior to construction and all other surface disturbing activities, the Applicant shall have conducted and submitted for approval by the BLM and CPUC an inventory of cultural resources within the project's final Areas of Potential Effect.<sup>1</sup> This survey will supplement inventories conducted for the EIS/EIR and shall satisfy Section 106 requirements for inventory of historic properties within all Areas of Potential Effect. The nature and extent of this inventory shall be determined by the BLM and CPUC in consultation with the appropriate State Historic Preservation Officer (SHPO) and other land-managing agencies (e.g., Anza-Borrego Desert State Park, U.S. Forest Service, Bureau of Indian Affairs, etc.) and shall be based upon project engineering specifications and in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61).

A report documenting results of this inventory shall be filed with appropriate State repositories and local governments. As part of the inventory report, the Applicant shall evaluate the significance of all potentially affected cultural resources on the basis of surface observations. Evaluations shall be conducted by professionals meeting the Secretary's Standards and in accordance with those Standards, to provide recommendations with regard to their eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility will be made by the BLM, in consultation with the CPUC and other appropriate agencies and local governments, and the SHPO.

As part of the inventory, the Applicant shall conduct field surveys of sufficient nature and extent to identify cultural resources that would be affected by tower pad construction, reconductoring activities, trenching for underground transmission lines, access road installation, and transmission line construction and operation. At a minimum, field surveys shall be conducted along newly proposed access roads, new construction yards, new tower sites, and any other projected areas of potential ground disturbance outside of the previously surveyed potential impact areas. Site-specific field surveys also shall be undertaken at all projected areas of impact within the previously surveyed corridor that coincide with previously recorded resource locations. The selected right-of-way and tower locations shall be staked prior to the cultural resource field surveys.

**C-1b Avoid and protect potentially significant resources.** Where operationally feasible, regardless of cost, potentially register-eligible resources shall be protected from direct project impacts by project redesign; complete avoidance of impacts to such resources shall be the preferred protection strategy. On the basis of preliminary National Register of Historic Places (NRHP) eligibility assessments (Mitigation Measure C-1a) or previous determinations of resource eligibility, the BLM and CPUC, in consultation with the SHPO, may require the relocation of the line, ancillary facilities, or temporary facilities or work areas, if any, where relocation would avoid or reduce damage to cultural resource values.

Where the BLM and CPUC decide that potentially NRHP- and/or CRHR-eligible cultural resources cannot be protected from direct impacts by project redesign, the Applicant shall undertake additional studies to evaluate the resources' NRHP- and/or CRHR-eligibility and to recommend further mitigative treatment. The nature and extent of this evaluation shall be

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<sup>1</sup> Area of Potential Effect is the horizontal and vertical extent of anticipated impacts that could affect historic properties. This includes direct impacts (physical disturbance from any project activity during or after construction) and indirect impacts, such as noise, vibration, visual intrusion, or erosion.

determined by the BLM in consultation with the CPUC and the SHPO and shall be based upon final project engineering specifications. Evaluations will be based on surface remains, subsurface testing, archival and ethnographic resources, and in the framework of the historic context and important research questions of the project area. Results of those evaluation studies and recommendations for mitigation of project effects shall be incorporated into a Historic Properties Treatment Plan consistent with Mitigation Measure C-1c (Develop and implement Historic Properties Treatment Plan).

All potentially NRHP- and/or CRHR-eligible resources (as determined by the BLM and CPUC, in consultation with the SHPO) that will not be affected by direct impacts, but are within 50 feet of direct impact areas, will be designated as Environmentally Sensitive Areas (ESAs) to ensure that construction activities do not encroach on site peripheries. Protective fencing, or other markers (after approval by CPUC/BLM), shall be erected and maintained to protect ESAs from inadvertent trespass for the duration of construction in the vicinity. ESAs shall not be identified specifically as cultural resources. A monitoring program shall be developed as part of a Historic Properties Treatment Plan and implemented by the Applicant to ensure the effectiveness of ESA protection (as detailed in Mitigation Measure C-1e).

**C-1c Develop and implement Historic Properties Treatment Plan.** Upon approval of the inventory report and the National Register of Historic Places (NRHP)-eligibility and CRHR-eligibility evaluations consistent with Mitigation Measures C-1a (Inventory and evaluate cultural resources in Final APE) and C-1b (Avoid and protect potentially significant resources), the Applicant shall prepare and submit for approval a Historic Properties Treatment Plan (HPTP) for register-eligible cultural resources to avoid or mitigate identified potential impacts. Treatment of cultural resources shall follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act and other appropriate State and local regulations, as explicated in Section D.7.8. Avoidance, recordation, and data recovery will be used as mitigation alternatives; avoidance and protection shall be the preferred strategy. The HPTP shall be submitted to the BLM and CPUC for review and approval.

As part of the HPTP, the Applicant shall prepare a research design and a scope of work for evaluation of cultural resources and for data recovery or additional treatment of NRHP- and/or CRHR-eligible sites that cannot be avoided. Data recovery on most resources would consist of sample excavation and/or surface artifact collection, and site documentation. A possible exception would be a site where burials, cremations, or sacred features are discovered that cannot be avoided (see Mitigation Measure C-2).

The HPTP shall define and map all known NRHP- and/or CRHR-eligible properties in or within 50 feet of all project APEs and shall identify the cultural values that contribute to their NRHP- and/or CRHR-eligibility. The HPTP shall also detail how NRHP- and/or CRHR-eligible properties will be marked and protected as ESAs (in accordance with Mitigation Measure C-1b) during construction.

The HPTP shall also define any additional areas that are considered to be of high-sensitivity for discovery of buried register-eligible cultural resources, including burials, cremations, or sacred features. This sensitivity evaluation shall be conducted by an archaeologist who meets the Secretary's Standards and who takes into account geomorphic setting and surrounding distributions of archaeological deposits. The HPTP shall detail provisions for monitoring construction in these high-sensitivity areas for proper implementation of Mitiga-

tion Measures C-1e and C-3a. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native Americans, and assessing register-eligibility in the event that unknown cultural resources are discovered during construction. For all unanticipated cultural resource discoveries, the HPTP shall detail the methods, consultation procedures, and timelines for assessing register-eligibility, formulating a mitigation plan, and implementing treatment. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and CPUC, other appropriate agencies and local governments, appropriate Native Americans, and the SHPO prior to implementation.

The HPTP shall also identify all historic built environment resources (structures, roads, dams, etc.) that would be affected indirectly by visual intrusion of the Proposed Project on qualities that contribute to their register eligibility. Although the current analysis has assessed the potential for indirect visual impacts to previously recorded historic built environment resources within 0.5 miles of the Proposed Project and Alternatives, the HPTP shall include an identification effort focused on identifying any such resources that may not have been previously recorded. The scope of this identification effort shall be in accordance with 36 CFR 800, which requires a reasonable effort to identify potentially NRHP-eligible resources that would be adversely affected by indirect project impacts. The HPTP shall also detail the treatment for each affected resource that will minimize those long-term visual impacts (as detailed in Mitigation Measure C-6a).

The HPTP shall include provisions for analysis of data in a regional context, reporting of results within one year of completion of field studies, curation of artifacts (except from private land) and data (maps, field notes, archival materials, recordings, reports, photographs, and analysts' data) at a facility that is approved by BLM, and dissemination of reports to local and State repositories, libraries, and interested professionals. The BLM will retain ownership of artifacts collected from BLM managed lands. The Applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. The HPTP shall specify that archaeologists and other discipline specialists conducting the studies meet the Secretary's Standards (per 36 CFR 61).

**C-1c** **Develop and implement Historic Properties Treatment Plan.** The Mohnike Adobe and its associated features shall be avoided. Constriction of the impact area for the underground portion of this alternative in the vicinity of the adobe shall be undertaken to avoid direct impact.

**C-1d** **Conduct data recovery to reduce adverse effects.** 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. 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 will 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 will follow standard statistical sampling methods, but sampling will 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. 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.

**C-1e Monitor construction at known ESAs.** The Applicant shall implement full-time archaeological monitoring by a professional archaeologist during ground-disturbing activities at all cultural resource Environmentally Sensitive Areas (ESAs). These locations and their protection boundaries shall be defined and mapped in the HPTP.

Archaeological monitoring shall be conducted by a qualified archaeologist familiar with the types of historical and prehistoric resources that could be encountered within the project, and under direct supervision of a principal archaeologist. The qualifications of the principal archaeologist and archaeological monitors shall be approved by the BLM and CPUC.

A Native American monitor may be required at culturally sensitive locations specified by the BLM following government-to-government consultation with Native American tribes. The monitoring plan in the HPTP shall indicate the locations where Native American monitors will be required and shall specify the tribal affiliation of the required Native American monitor for each location. The Applicant shall retain and schedule any required Native American monitors.

Compliance with and effectiveness of any cultural resources monitoring required by an HPTP shall be documented by the Applicant in a monthly report to be submitted to the BLM and CPUC for the duration of project construction. In the event that cultural resources are not properly protected by ESAs, all project work in the immediate vicinity shall be diverted to a buffer distance determined by the archaeological monitor until authorization to resume work has been granted by the BLM and CPUC.

The Applicant shall notify the BLM of any damage to cultural resource ESAs. If such damage occurs, the Applicant shall consult with the BLM and CPUC to mitigate damages and to increase effectiveness of ESAs. At the discretion of the BLM and CPUC, such mitigation may include, but not be limited to, modification of protective measures, refinement of monitoring protocols, data-recovery investigations, or payment of compensatory damages in the form of non-destructive cultural resources studies or protection within or outside the license area, at the discretion of the BLM.

**C-1f Train construction personnel.** All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. The Applicant shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American

burials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order.

The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources.
- The Applicant shall provide training for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA, and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources.

**C-1g**     **Avoid and protect Old Highway 80 (P-37-024023).** A portion of the Interstate 8 Alternative would be constructed underground within Alpine Boulevard; from approximately MP 74.3 to MP 80 of this underground segment, Alpine Boulevard is also Old Highway 80. Construction impacts to contributing elements of this resource shall be minimized by avoidance of highway segments that retain integrity, as well as associated historic road signs and monuments located on the shoulder. If avoidance is not possible, affected segments shall be formally evaluated to assess their contribution to the NRHP eligibility of the resource as a whole. Additional protective measures are required to reduce adverse effects include formal documentation (i.e., HABS/HAER), and interpretive signage.

**C-2a**     **Properly treat human remains.** All locations of known Native American human remains shall be avoided through project design and shall be protected by designation as ESAs. If the approved project route will affect sites known to contain human remains that cannot be avoided in their entirety during construction, the Applicant shall contact the California Native American Heritage Commission (NAHC). The NAHC will identify the Most Likely Descendant (MLD), within 48 hours, who will specify the preferred course of treatment in the event that additional human remains are discovered. The Applicant shall also contact the BLM (lead federal agency for the Proposed Project) and any additional land management agencies if the site is located on public lands administered by a State or federal agency other than the BLM. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the treatment of human remains (see Section D.7.7). The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations.

If human remains are discovered during construction, all work shall be diverted from the area of the discovery and the BLM authorized officer shall be informed immediately. The Applicant shall follow all State and federal laws, statutes, and regulations that govern the

treatment of human remains. The Applicant shall assist and support the BLM in all required government-to-government consultations with Native Americans and appropriate agencies and commissions, as requested by the BLM. The Applicant shall comply with and implement all required actions and studies that result from such consultations, as directed by the BLM.

Although subject to the recommendations of the MLD, it is likely that the human remains would be respectfully removed by the MLD and/or qualified archaeologists and reinterred in an area not subject to impacts from the Proposed Project. The re-interment location may be identified as a nearby locale within SDG&E ROW, or an off-site location may be selected. The Applicant shall assist and support the MLD in identifying, acquiring, and protecting the re-interment location.

**C-3a Monitor construction in areas of high sensitivity for buried resources.** The Applicant shall implement archaeological monitoring by a professional archaeologist during subsurface construction disturbance at all locations identified in the Historic Properties Treatment Plan (HPTP) as highly sensitive for buried prehistoric or historical archaeological sites or Native American human remains. These locations and their protection boundaries shall be defined and mapped in the HPTP. Intermittent monitoring may occur in areas of moderate archaeological sensitivity at the discretion of the BLM and CPUC. Monitoring shall be conducted in accordance with procedures detailed in Mitigation Measure C-1e

Upon discovery of potential buried cultural materials by archaeologists or construction personnel, or damage to an ESA, work in the immediate area of the find shall be diverted and the Applicant's archaeologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's archaeologist will consult with the BLM or CPUC, as appropriate, to make the necessary plans for evaluation and treatment of the find(s) or mitigation of adverse effects to ESAs, in accordance with the Secretary's Standards, and as specified in the HPTP.

**C-4a Complete consultation with Native American and other Traditional Groups.** 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).

**C-4b Conduct cultural resources survey of the entirety of the identified cultural landscape within a portion of the Anza-Borrego Link of the Proposed Project and prepare a report documenting the resources present as well as the ethnographic use of the area.** The Applicant shall retain a professional cultural resources consultant who shall conduct a

- cultural resources survey of the cultural landscape and use area from ridge top to ridge top (generally east-west) and from Tamarisk Grove to the northern terminus at S-22. All identified archaeological resources and Native gathering areas shall be recorded on appropriate DPR forms. In addition, the Applicant shall retain an ethnographer to conduct interviews with Native Americans including members of the Kwaaymii Laguna Band of Indians and the Santa Ysabel Band of Diegueño Indians regarding past and present uses of the area. The results of this survey shall be presented in a technical report that synthesizes the site information with the ethnography to provide the most complete picture possible of Native American use of the area. The surveys shall be coordinated with ABDSP. The distribution of the final report of findings shall be at the discretion of the Kwaaymii Laguna Band of Indians and the Santa Ysabel Band of Diegueño Indians, in consultation with the ABDSP.
- C-4c Consult with the Santa Ysabel Band of Diegueño Indians.** Consult with the Santa Ysabel Band of Diegueño Indians and Implement Mitigation Measure V-3a and C-6c.
- C-5a Protect and monitor NRHP- and/or CRHR-eligible properties.** 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.
- 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.

- 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.
- C-6a Reduce adverse visual intrusions to historic built environment properties.** All known historic built environment resources located within 0.5 miles of the Proposed Project shall be inventoried and subjected to a visual analysis to assess which resources would be subject to potential indirect visual intrusions resulting from the project. This inventory will supplement the analysis of built environment resources conducted for the EIS/EIR, and shall meet the requirements of Section 106 to inventory historic properties that could be adversely affected by the Proposed Project. The Applicant shall inventory potentially register-eligible built environment resources within an Area of Potential Indirect Effect established by the BLM and CPUC. A qualified (Secretary of the Interior Standards) Architectural Historian shall assess the potential for visual intrusions on the qualities that qualify any historic properties within the APE for register eligibility. The results of this inventory shall be included in the HPTP. If any historic properties are identified that would be adversely affected by visual intrusions from the Proposed Project, the HPTP shall also specify mitigation measures that would be implemented to reduce adverse effects, such as screening the visual intrusion with vegetation, moving project towers to less conspicuous locations, or altering towers to reduce any identified adverse effects.
- C-6b Reduce adverse visual intrusions at the Tamarisk Grove Campground.** Specifically for the Tamarisk Grove Campground, pole locations shall be selected to offer the maximum screening from the campground by the Tamarisk trees and the number of poles placed in direct view of the campground shall be minimized. Additionally, poles shall be painted to blend into the surrounding landscape, thereby minimizing the visual impact.
- C-6c Reduce adverse visual intrusions to the Chapel of Santa Ysabel.** In order to reduce visual intrusions in the vicinity of the Chapel of Santa Ysabel, new tower locations shall be screened through planting of trees, selective tower locating, and painting the towers to match the surrounding landscape.
- C-6d Reduce adverse visual intrusion to the San Felipe Valley and Stage Station.** For the San Felipe Valley and Stage Station visual intrusion by the aboveground portion of this alternative shall be minimized by a combination of following the existing transmission line corridor, minimizing tower height, screening, and painting towers to match the surroundings.
- C-6e Reduce adverse visual intrusions to portions of Old Highway 80.** Visual intrusion by the aboveground portion of this alternative, on portions of Old Highway 80 that retain integrity of setting shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. In addition, since segments of Old Highway 80 would be crossed by the overhead portion of the alternative, compensatory mitigation including new signage shall be employed. If this alternative is constructed, SDG&E shall develop a protection plan for Old Highway 80 that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction. (Interstate 8 Alternative)

- C-6e**      **Reduce adverse visual intrusions to portions of Old Highway 80.** Visual intrusion on portions of Old Highway 80 that retain integrity of setting, caused by the aboveground portion of this alternative, shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. In addition, since segments of Old Highway 80 would be crossed by the overhead portion of the BCD South Alternative, compensatory mitigation including new signage shall be employed.
- C-6f**      **Reduce adverse visual intrusions to the Desert View Tower viewshed.** Visual intrusion to the Desert View Tower viewshed, caused by the aboveground portion of this alternative shall be minimized by a combination of minimizing tower height, screening, and painting towers to match the surroundings. Specific measures to minimize visual effects to the Desert View Tower shall be developed in consultation with the owner of this resource. If this alternative is constructed, SDG&E shall develop a protection plan for the Desert View Tower viewshed that defines resources to be protected, includes input from visual resources specialists, and evaluates a menu of protection options. The report shall be provided to the CPUC and BLM for review and approval at least 60 days before the start of construction.

## Paleontological Resources

- PAL-1a Inventory and evaluate paleontological resources in the Final APE.** Prior to construction, the Applicant shall conduct and submit to CPUC, BLM, and other involved land-managing agencies for approval an inventory of significant paleontological resources within the affected area based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.
- PAL-1b Develop Paleontological Monitoring and Treatment Plan.** Following completion and approval of the paleontological resources inventory and prior to construction, the Applicant shall prepare and submit to CPUC, BLM, and other involved land-managing agencies for approval a Paleontological Monitoring Treatment Plan (Plan). The plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements. The qualified paleontologist shall have a Master's Degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist) Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Monitor shall have a B.A. in Geology or Paleontology, and a minimum of one year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the Applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to a Paleontological Resources Use Permit (for work on public lands administered by BLM) and a Paleontological Collecting Permit (for work on lands administered by California Department of Parks and Recreation). Notices to proceed will be issued by the BLM, CPUC, and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.
- PAL-1c Monitor construction for paleontology.** Based on the paleontological sensitivity assessment and Paleontological Monitoring and Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan), the Applicant shall conduct full-time construction monitoring by the qualified paleontological monitor in areas determined to have moderate to high paleontological sensitivity. Sediments of low, marginal undetermined sensitivity shall be monitored by a qualified paleontological monitor on a part-time basis (as determined by the Qualified Paleontologist). Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the Qualified Paleontologist
- PAL-1d Conduct paleontological data recovery.** If avoidance of significant paleontological resources is not feasible or appropriate based on project design, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the Applicant, in accordance to the approved Treatment Plan per Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

**PAL-1e Train construction personnel.** Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The Applicant shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas (ESAs) include areas determined to be paleontologically sensitive as defined on the paleontological sensitivity maps for the project, and must be avoided and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the right-of-way by the Applicant, his representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate State and federal laws and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- The Applicant shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential ESAs, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.
- Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted and the Applicant's paleontologist notified. Once the find has been inspected and a preliminary assessment made, the Applicant's paleontologist will notify the BLM, CPUC, and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PAL-1b (Develop Paleontological Monitoring and Treatment Plan).

## Noise

- N-1a Implement Best Management Practices for construction noise.** SDG&E shall comply with local noise rules, standards, and/or ordinances by implementing the following noise-suppression techniques and variance standards set by local authorities. SDG&E shall apply for and obtain a variance for construction activities that must occur outside of the daytime hours allowed by local ordinances or within 200 feet of noise-sensitive receptors. At a minimum, SDG&E shall employ the following noise-suppression techniques to avoid possible violations of local rules, standards, and ordinances:
- Confine construction noise to daytime, weekday hours (e.g., 7:00 a.m. to 7:00 p.m.) or an alternative schedule established by the local jurisdiction or land use manager
  - On construction equipment, use noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer
  - Install temporary sound walls or acoustic blankets to shield adjacent residences. These sound walls or acoustic blankets shall have a height of no less than 8 feet, a Sound Transmission Class (STC) of 27 or greater, and a surface with a solid face from top to bottom without any openings or cutouts
  - Route construction traffic away from residences and schools, where feasible
  - Minimize unnecessary construction vehicle use and idling time. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. A “common sense” approach to vehicle use shall be applied; if a vehicle is not required for use immediately or continuously for construction activities, its engine shall be shut off. (Note: certain equipment, such as large diesel-powered vehicles, require extended idling for warm-up and repetitive construction tasks.)
- N-2a Avoid blasting where damage to structures could occur.** Blasting shall be managed with a plan for each site. The plan shall include the blasting methods, surveys of existing structures and other built facilities, and distance calculations to estimate the area of effect of the blasting. Blasting shall not be allowed where damage to vulnerable structures could occur, and a rock anchoring or mini-pile system shall be used if adjacent structures could be damaged as a result of blasting or any construction method used as an alternative to blasting. If any structure is inadvertently adversely affected by construction vibration, the structure shall be restored to conditions equivalent to those prior to blasting. SDG&E shall then fairly compensate the owner of any damaged structure for lost use.
- N-3a Respond to complaints of corona noise.** 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.
- N-3b Perform Operational Noise Study.** As part of facility design, an Operational Noise Study shall be conducted to determine the potential noise levels to be experienced by residents located within the reservation lands and along the boundaries of the reservation and BLM lands in which the planned wind component turbines would be located. The analysis shall

- be based on the planned siting of the wind turbines (number turbines and their alignment) and type of turbines to be used, and shall determine the distance from the turbines at which the operational noise level is reduced to 65 dB. The Operational Noise Study shall be reviewed and approved by San Diego County prior to land use clearance. If the siting of turbines results in reservation residence(s) being located within a 65 dB noise contour for the wind component turbines or the sound level exceeds 65 dB at the property boundaries, the turbine(s) at this location(s) shall be moved until the residence(s) and/or property lines fall outside of the 65 dB noise contour. Final siting of wind component turbines shall be subject to approval by San Diego County.
- N-3c**     **Silence noise from steam blows during power plant commissioning.** Temporary silencers on air and steam discharge vents shall be used during air and steam blow cleaning in the commissioning and start-up phases. Silencers shall be designed to achieve noise levels below 45 dBA at the nearest residential receptor.
- N-3d**     **Incorporate noise reduction features with power plant design.** Power plant design and implementation shall include noise reduction and control design features to ensure that operation of the project will meet the noise levels established by the local jurisdictions, while accounting for ambient noise conditions. The design shall ensure that routine operation of the power plant does not exceed the existing nighttime background noise level at any of the closest noise-sensitive receptors by more than 5 dB.
- N-3e**     **Verify proper power plant noise control.** A noise survey shall be performed within 90 days of the startup of commercial operations to confirm that the modeled noise levels are met. Any deficiencies shall be noted, and a schedule to correct them shall be developed. The survey shall be used to confirm that routine operation of the power plant does not exceed the existing nighttime background noise level at any of the closest noise-sensitive receptors by more than 5 dB.

## Transportation and Traffic

- T-1a**     **Restrict lane closures.** SDG&E shall restrict all necessary lane closures or obstructions on major roadways associated with overhead or underground construction activities to off-peak periods in congested areas to reduce traffic delays. Lane closures must not occur between 6:00 and 9:30 a.m. and between 3:30 and 6:30 p.m., unless otherwise directed in writing by the responsible public agency issuing an encroachment permit.
- T-1b**     **Prepare detour plans.** Detour plans shall be submitted to the counties, Caltrans, and/or other appropriate jurisdiction. Within the ABDSP, a Right-of-Entry (ROE) permit is required for any construction and maintenance activities that would occur outside of existing easements, including access roads. SDG&E will provide California State Parks a request in writing for maintenance or other earth-disturbing activities. [T-APM-2b]
- T-1b**     **Repair damaged roads.** (LEAPS Alternative, Same as T-5a, see below)
- T-1c**     **Obtain required permits.** ENPEX shall obtain required permits for the temporary lane closures from the appropriate jurisdiction(s) (City of Santee, MCAS Miramar, or other jurisdiction) prior to any construction activities. (New In-Area All Source Generation Alternative)
- T-1c**     **Obtain required permits.** Stirling shall obtain required permits for the temporary lane closures from the responsible jurisdiction(s) prior to any construction activities. (Stirling Energy Systems)
- T-2a**     **Coordinate with Emergency Service Providers.** SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The counties and cities will then notify respective police, fire, ambulance and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing and duration of any construction activities and advise of any access restrictions that could impact their effectiveness. [T-APM-4a]
- T-2b**     **Coordinate with Emergency Service Providers.** See Section D.9.11 for a description of this mitigation measure.
- T-3a**     **Consult with bus and transit services.** SDG&E shall consult with the County Offices of Education, and any affected local school district at least one month prior to construction to coordinate construction activities adjacent to school bus routes and stops. If necessary, school bus stops will be temporarily relocated or buses will be rerouted until construction in the vicinity is complete. SDG&E will also consult with Imperial Valley Transit, Metropolitan Transit System and any other affected transit system at least one month prior to construction to reduce potential interruption of transit services. [T-APM-5a]
- T-3b**     **Consult with bus and transit services.** (Same as T-3a, see above.)
- T-4a**     **Ensure pedestrian and bicycle circulation and safety.** Where construction will result in temporary closures of sidewalks and other pedestrian facilities, SDG&E shall provide temporary pedestrian access, through detours or safe areas along the construction zone. Where construction activity will result in bike route or bike path closures, appropriate detours and signs shall be provided.
- T-5a**     **Repair damaged roads.** If damage to roads occurs as a result of project construction or construction vehicle traffic, SDG&E shall restore damaged roadways at their own expense under the direction of the affected public agencies to ensure that any impacts are adequately

- repaired. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction. Prior to construction, SDG&E will determine with the governing agency the appropriate method for documenting pre- and post-construction conditions.
- T-6a Obtain railroad right-of-way permit.** SDG&E shall obtain ROW encroachment permits for entering and/or construction on or near Union Pacific Railroad, San Diego & Arizona Eastern Railroad, U.S. Gypsum Mine and any other railroad ROW entered. [T-APM-8a]
- T-6b Obtain railroad right-of-way permit.** (Same as T-6a, see above)
- T-7a Notify public of potential short-term elimination of parking spaces.** As required in Mitigation Measures L-1a, prior to any construction activity on major roadways, SDG&E shall notify the public of the potential for parking spaces to be temporarily eliminated and where temporary parking spaces will be relocated through multiple media such as local newspapers and on-site postings. The elimination and relocation of parking spaces must be in conformance with the requirements of agencies responsible for parking management.
- T-7b Comply with county parking restrictions.** Parking on San Diego County-maintained roads and highways is not permissible by law unless otherwise noted at specific locations. Parking is prohibited where signage and painted curbs indicates no parking. Where the project crosses major roadways, parking shall be prohibited in the project work area. Parking shall comply within the County of San Diego Department of Public Works Traffic Guidelines, 2001 whenever possible or as indicated in an approved traffic control plan. [T-APM-6b]
- T-9a Prepare Construction Transportation Management Plan.** SDG&E shall prepare a Construction Transportation Management Plan (CTMP) to address traffic and transportation issues related to project construction. The CTMP shall describe alternate traffic routes, timing of worker commutes and material deliveries, the need for lane and road closures, the use of helicopters, plans for construction worker parking and transportation to work sites, methods for keeping roadways clean, and other methods for reducing adverse construction-related traffic impacts on regional and local roadways. The plan must comply with the requirements of the respective county and must be submitted to the respective counties and Caltrans for approval prior to commencing construction activities.
- T-9b Add traffic lanes on Grand Avenue.** The proponent shall do one of the following in coordination with the City of Lake Elsinore: (1) add a second left turn lane to the Ortega Highway intersection approach to address the high number of left turns on to Ortega Highway from Grand Avenue, or (2) add a through lane on Grand Avenue (for a total of two) in both directions, at the Grand/Ortega intersection. (LEAPS Alternative)
- T-9b Prepare Traffic Impact Study (TIS).** The power plant site-specific TIS shall address trip reduction, alternative routing and alternative transportation for workers. The TIS shall address timing of heavy equipment and building material deliveries, debris removal, potential street and/or lane closures, signing, lighting, and traffic control device placement in order to reduce impacts on roadways during peak hours. (New In-Area All Source Generation Alternative)
- T-9c Prepare Construction Transportation Plan—Riverside County.** Where construction traffic has the potential to significantly impact regional and local roadways by generating additional traffic, the proponent shall prepare a Construction Transportation Plan (CTP) describing alternate traffic routes, timing of commutes, reduction in crew related traffic and

other mitigation methods for reducing construction generated additional traffic on regional and local roadways. Within Riverside County the CTP must provide improvements or other measures to mitigate traffic impacts from reducing the existing LOS or to cause it to be lower than a LOS C during any peak hour. The CTP must provide improvements or other measures to mitigate traffic impacts to avoid reduction in LOS below C. The proponent shall submit the Construction Transportation Plan to Riverside County for approval prior to commencing construction activities.

**T-10a** **Ensure access to properties and businesses.** SDG&E or its construction contractors shall provide at all times the ability to quickly lay a temporary steel plate trench bridge upon request in order to ensure driveway access to businesses and residences and shall provide continuous access to properties when not actively constructing the underground cable alignment. [T-APM-10a]

**T-10b** **Revise BCD South Option.** Modify the BCD South Option as illustrated in Figure E.2.9-1 to eliminate the tower located within Caltrans ROW.

**T-11a** **No new roads shall be created in Inventoried Roadless Areas.**

## Public Health and Safety – Environmental Contamination

- P-1a**      **Implement Environmental Monitoring Program.** An environmental monitoring program will be implemented by SDG&E or its contractors to ensure that the plans defined in HS-APM-1 (personnel trained in proper use and safety procedures for the chemicals used), HS-APM-2 (personnel trained in refueling of vehicles), HS-APM-3 (preparation of environmental safety plans including spill prevention and response plan), HS-APM-8 (SDG&E's and/or General Contractor environmental/health and safety personnel), and HS-APM-10 (storage and disposal of hazardous and solid waste) are followed throughout the period of construction. SDG&E will designate an Environmental Field Representative, who will be on site to observe, enforce, and document adherence to the plans for all construction activities.
- P-1b**      **Maintain emergency spill supplies and equipment.** Hazardous material spill kits will be maintained on-site by SDG&E or its contractors for response to small spills. This shall include oil-absorbent material, tarps, and storage drums to be used to contain and control any minor releases. Emergency spill supplies and equipment will be kept adjacent to all areas of work and in staging areas, and will be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials will be provided in the project's Spill Response Plan defined in HS-APM-3.
- P-1c**      **Personnel trained in proper use and safety procedures for the chemicals used.** All personnel involved in using hazardous materials shall be trained in the proper use and safety procedures for the chemical and provided with the necessary Personal Protection Equipment (PPE). A Hazard Communication (HAZCOM) Plan with Material Safety Data Sheets on all hazardous materials used for the project shall be developed.
- P-1d**      **Personnel trained in refueling of vehicles.** Only personnel trained in refueling vehicles would be allowed to perform this operation. All refueling operation shall be in designated areas or preformed by assigned vehicles. [HS-APM-2]
- P-1e**      **Preparation of environmental safety plans including spill prevention and response plan.** All applicable environmental safety plans associated with hazardous materials shall be developed for the project. These plans include but are not necessarily limited to Hazardous Material Business (HMB) Plan; HAZCOM Plan; Spill Response Plan; 90-day temporary storage and disposal (TSD) facility permit; and SPCC Plan (only if storage is over 1,350 gallons at one location). [HS-APM-3]
- P-1f**      **Applicant's and/or General Contractor environmental/health and safety personnel.** The applicant will assign an Environmental Field Representative and/or General Contractor assigned Health & Safety Office to the project. [HS-APM-8]
- P-1g**      **Proper storage and disposal of generated waste.** All hazardous waste and solid waste shall be stored and disposed of in accordance with federal, State, and local regulations. Whenever feasible, hazardous material minimization methods shall be employed and all hazardous materials recycled. [HS-APM-10]
- P-1NWg**    **Prepare power plant construction waste management plan.** Hazardous waste from power plant construction and/or associated demolition on on-site structures shall be collected in satellite accumulation containers near the points of generation. It shall be moved daily to the contractor's 90-day hazardous waste storage area, located at one of the site's construction laydown areas. The waste shall be removed from the site by a certified

hazardous waste collection company and delivered to an authorized hazardous waste management facility, prior to expiration of the 90-day storage limit. A Construction Waste Management Plan shall be prepared to describe procedures that will be used during construction activities.

**P-2a Test for residual pesticides/herbicides in agricultural areas.** In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing plan shall be prepared and conducted by an appropriate California licensed professional and sent to a California Certified laboratory. Samples shall be tested at a California Certified Laboratory. A report documenting the areas proposed for sampling, and the process used for sampling, testing shall be submitted to the CPUC and BLM for review and approval at least 60 days before construction. Results of the laboratory testing and recommended resolutions for handling and excavation of material found to exceed regulatory requirements shall be submitted to the CPUC and BLM (if on BLM land) 30 days prior to construction.

Excavated materials containing elevated levels of pesticide or herbicide will require special handling and disposal according to procedures established by the regulatory agencies. Effective dust suppression procedures will be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. Regulatory agencies for the State of California (DTSC or RWQCB) and the appropriate County (San Diego or Imperial) shall be contacted by SDG&E or its contractor to plan handling, treatment, and/or disposal options.

**P-2b Stop work if contamination is detected.** If during excavation if soil or groundwater contamination is suspected (e.g., unusual soil discoloration or strong odor), the contractor or subcontractor shall immediately stop work and notify the General Contractor's assigned Health & Safety Officer and/or the applicant's field environmental representative. [HS-APM-15]

**P-2c Cordon off contaminated areas.** If soil or groundwater contamination is suspected, work near the excavation site shall be terminated, the work area cordoned off, and appropriate health and safety procedures implemented for the location by the General Contractor's assigned Health & Safety Officer and/or the applicant's field environmental representative. Preliminary samples of the soil, groundwater, or material shall be taken by a 40-hour OSHA-trained individual. These samples shall be sent to a California Certified Laboratory for characterization. [HS-APM-16]

**P-2d Notification of regulatory agencies.** If the sample testing determines that contamination is not present, work would be allowed to proceed at the site. However, if contamination is found above regulatory limits, the regulatory agency (e.g., RWQCB or CUPA) responsible for responding to and for providing environmental oversight of the region shall be notified in accordance with State or local regulations. [HS-APM-17]

**P-2e Observe exposed soil.**

**P-3a Appoint individuals with correct training for sampling, data review, and regulatory coordination.** In the event that potential contaminated soil or groundwater is encountered, samples shall be collected by an OSHA-trained individual with a minimum of 40-hours hazardous material site worker training. Laboratory data from suspected contaminated material shall be reviewed by the contractor's Health and Safety Officer and/or SDG&E's

- Field Environmental Representative and they shall coordinate with the appropriate regulatory agency (RWQCB or local CUPA agency) if contamination is confirmed to determine the suitable level of worker protection and the necessary handling and/or disposal requirements.
- P-3b Documentation of compliance with measures for encountering unknown contamination.** If during grading or excavation work, the contractor observes visual or olfactory evidence of contamination in the exposed soil a report of the location and the potential contamination, results of laboratory testing, recommended mitigation (if contamination is verified), and actions taken shall be submitted to the CPUC and BLM (if on BLM lands) for each event. This report shall be submitted within 30 days of receipt of laboratory data.
- P-4a Unexploded ordnance to be removed by trained personnel.** An Unexploded Ordnance (UXO) investigation of known and potential areas used by the military along the ROW shall be undertaken by a trained contractor. If UXO are found, they shall be removed by trained personnel. [HS-APM-6]
- P-4b Train project personnel to recognize unexploded ordnance.** All personnel involved in excavation and grading or for ROW clearing shall be trained to recognized UXO and/or potential soil, surface water, and groundwater potential contamination sites. [HS-APM-7]
- P-5a Include HTF in spill response plans and remediate contaminated soil.** Specific mention of heat transfer fluid (HTF) oil spill prevention and response shall be included in all project environmental safety plans, including the project Risk Management Plan (RMP) (in accordance with the California Accidental Release Prevention Program [CalARP] regulations), Hazardous Material Business Plan (HMBP) (submitted to the local Certified Unified Program Agency [CUPA] and the San Diego County Fire Department), and Hazardous Substance Control and Emergency Response Plan (see Mitigation Measure H-7a). In the event of a HTF oil spill, contaminated soil shall be removed to an on-site bio-remediation facility until the HTF oil concentrations have been reduced to acceptable levels as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
- P-6a Develop list of approved herbicides.** The project proponent shall develop a list of herbicides to be used for construction, operation, and maintenance of the project ROW in consultation with USFWS and USFS (on Forest System lands). This list shall be subject to agency approval at least 60 days prior to construction.
- P-6b Conduct Environmental Database Review.** An environmental database review shall be conducted for the wind component facilities north of Interstate 8 (wind tower/turbine locations, access/spur roads, underground interconnection routes, switchyard site, and operation and maintenance facility sites). The results of the environmental database review and recommended measures shall be provided to San Diego County for review and approval prior to land use clearance. Any identified sites shall be evaluated in accordance with Mitigation Measure P-6a. (Wind Component, New In-Area Renewable Generation Alternative)
- P-6b Update and follow Sempra's Physical and Climatic Target Area Evaluation Form.** The project proponent shall update Sempra's Physical and Climatic Target Area Evaluation Form to contain current contact information, and all personnel shall follow the steps laid out in the Form during all stages of project construction and operation. (LEAPS Alternative)
- P-7a Evaluate contaminated sites.** SDG&E shall implement the following steps, all steps be completed at least 90 days prior to project construction, to prevent mobilization of contaminants and exposure of workers and the public:

- **Step 1.** Investigate the site to determine whether it has a record of hazardous material contamination which would affect construction activities. This investigation should be performed as a Phase I – Environmental Site Assessment (ESA). If contamination is found that could potentially affect the health and safety of workers or the public during construction of the Proposed Project, proceed to Step 2.
- **Step 2.** Perform a characterization study of the site to determine the nature and extent of the contamination present at the location before construction activities proceed within the project ROW near the suspect site.
- **Step 3.** Determine the need for further investigation and/or remediation of the soil or groundwater conditions at or near the contaminated site, i.e., within areas of ground disturbance for the Proposed Project. (For example, if there would be little or no contact with contaminated materials, industrial cleanup levels would likely be applicable. If site activities would involve human contact with the contaminated materials, such as would be the case with excavation of contaminated materials during project construction, then Step 4 shall be completed. If no human contact is anticipated, then no further mitigation would be required for the location.)
- **Step 4.** If it is determined that disturbance or excavation of soils or groundwater with contamination would accompany construction at the site, undertake a Phase II Environmental Site Investigation (Phase II ESI) involving sampling and further characterization of potentially contaminated areas with the project ROW or reroute the line away from the contamination area. Should further investigation reveal high levels of hazardous materials, mitigate health and safety risk according San Diego County CUPA or RWQCB regulations or requirements. This would include site-specific Health and Safety Plans, Work Plans, and/or Remediation Plans.

**P-7b Investigate contaminated sites.** All Government Code §65962.5 sites or other known contamination sites along the transmission line ROW or such sites that would affect construction work shall be investigated to determine potential impacts to the project. [HS-APM-5]

**P-7b Investigate contaminated sites.** An environmental database review shall be conducted for power plant sites including access roads, linear facility routes, and staging areas. The results of the environmental database review and recommended measures shall be provided to San Diego County for review and approval prior to land use clearance. Any identified sites shall be evaluated in accordance with Mitigation Measure P-7a. (New In-Area All Source Generation Alternative)

**P-8a Prepare Offsite Consequence Analysis and Emergency Action Plan.** The power plant developer shall prepare an offsite consequence analysis of the worst-case hazardous materials release, and an Emergency Action Program/Plan shall be established that describes escape procedures, rescue and medical procedures, alarm and communication systems, and response procedures for hazardous materials that can migrate, such as ammonia. The programs or plans shall be contained in written documents at specific locations within the facility. A fire protection and prevention program shall also be established. (New In-Area All Source Generation Alternative)

**P-8a Verify Presence of Landfill Gases.** To assess the possibility that contamination from this landfill could affect the facility construction zone, a record search shall be completed to determine whether contamination could extend into proposed trenching or excavation areas. If records cannot confirm a gas-free landfill perimeter adjacent to the project, a soil vapor

survey consisting of driving probes at the affected excavation areas should be conducted. Vapor samples should be tested for methane, other flammable gases and volatile organic compounds. Laboratory test results should be reported to the San Diego County Hazardous Materials Division (HMD) and include an assessment of the contamination potential in the excavation areas. A copy of the San Diego County HMD approval letter must be provided to the CPUC prior to start of construction. (Biomass/Biogas component, New In-Area Renewable Generation Alternative)

**P-8b Implement Personnel Safety and Monitoring Measures.** If laboratory tests indicate the presence of landfill gasses in the construction areas, a Health and Safety Plan shall be developed by a licensed industrial hygienist and a gas monitoring program will be implemented by the applicant or their contractors. A copy of the Health and Safety Plan and monitoring program shall be submitted to the San Diego County HMD and CPUC for approval prior to start of construction.

**P-9a Notify residents and recreational users of rotenone use.** At least 30 days prior to application of rotenone, the proponent shall post signs at all lakeshore recreation areas and shall publish notices in local newspapers, informing the public of the timing of planned rotenone application. The notice shall provide information on lake closure and potential health effects. In addition, the proponent shall patrol the lake at all recreation sites during the closure to ensure that no recreation takes place during the period of rotenone exposure.

## Public Health and Safety – Electric and Magnetic Fields and Other Field-Related Concerns

- PS-1a**     **Limit the conductor surface electric gradient.** As part of the design and construction process for the Proposed Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.
- PS-1b**     **Document and resolve electronic interference complaints.** 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.
- PS-2a**     **Implement grounding measures.** 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.

## Air Quality

- AQ-1a Suppress dust at all work or staging areas and on public roads.** SDG&E shall: (a) pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas, and staging areas if construction activity causes persistent visible emissions of fugitive dust beyond the work area; (b) pre-water sites for 48 hours in advance of clearing; (c) reduce the amount of disturbed area where possible; (d) all dirt stock-pole areas should be sprayed daily as needed; (e) cover loads in haul trucks or maintain at least six inches of free-board when traveling on public roads; (f) pre-moisten, prior to transport, import and export dirt, sand, or loose materials; (g) sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets or wash trucks and equipment before entering public streets; (h) plant vegetative ground cover in disturbed areas as soon as possible following construction; (i) apply chemical soil stabilizers or apply water to form and maintain a crust on inactive construction areas (disturbed lands that are unused for four consecutive days); and (j) prepare and file with the ICAPCD, SDAPCD, BLM, and CPUC a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project.
- AQ-1b Use low-emission construction equipment.** SDG&E shall maintain construction equipment per manufacturing specifications and use low-emission equipment described here. All off-road construction diesel engines not registered under the CARB Statewide Portable Equipment Registration Program, which have a rating of 50 horsepower (hp) or more, shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, Sec. 2423(b)(1) unless that engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a Tier 1 engine. If any engine larger than 100 hp does not meet Tier 1 standards, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless the engine manufacturer indicates that the use of such devices is not practical for that particular engine type. SDG&E shall substitute small electric-powered equipment for diesel- and gasoline-powered construction equipment where feasible.
- AQ-1c Comply with Imperial County dust control requirements.** For activities in Imperial County, the project will comply with ICAPCD Rule 800 (Fugitive Dust Requirement for Control of Fine Particulate Matter [PM10]). A Dust Control Plan for construction activities would be filed with the ICAPCD.
- AQ-1d Implement dust reduction measures. The following measures shall be implemented.**
- Prohibit construction grading on days when the wind gusts exceed 25 mph to the extent feasible to control fugitive dust.
  - All trucks hauling soil and other loose material will be covered or maintain at least two feet of freeboard.
  - Snow fence-type windbreaks will be erected in areas identified as needed by SDG&E.
  - Vehicle speeds will be limited to 15 mph on unpaved (no gravel or similar surfacing material) roads.
  - Unpaved roads will be treated by watering as necessary.
  - Soil stabilizers will be applied to inactive construction areas on an as-needed basis.
  - Exposed stockpiles of soil and other excavated materials will be contained within perimeter silt fencing, watered, treated with soil binders, or covered as necessary.

- AQ-1e Prevent transport of mud and dust.** To minimize mud and dust from being transported onto paved roadway surfaces, pave or gravel, use rattle plates, or apply water at sufficient concentration and frequency to maintain a stabilized surface starting from the point of intersection with the public paved surface. SDG&E will implement this measure where applicable and not conflicting with other requirements. [AQ-APM-3]
- AQ-1f Encourage carpooling.** If suitable park-and-ride facilities are available in the project vicinity, construction workers will be encouraged to carpool to the job site to the extent feasible. The ability to develop an effective carpool program for the Proposed Project would depend upon the proximity of carpool facilities to the job site, the geographical commute departure points of construction workers, and the extent to which carpooling would not adversely affect worker show-up time and the project's construction schedule. [AQ-APM-4]
- AQ-1g Minimize vehicle idling.** To the extent feasible, unnecessary construction vehicle and idling time will be minimized. The ability to limit construction vehicle idling time is dependent upon the sequence of construction activities and when and where vehicles are needed or staged. Certain vehicles, such as large diesel-powered vehicles, have extended warm-up times following start-up that limit their availability for use following start-up. Where such diesel-powered vehicles are required for repetitive construction tasks, these vehicles may require more idling time. The Proposed Project will apply a "common sense" approach to vehicle use; if a vehicle is not required for use immediately or continuously for construction activities, its engine will be shut off. Construction foremen will include briefings to crews on vehicle use as a part of pre-construction conferences. Those briefings will include discussion of a "common sense" to vehicle use. [AQ-APM-5]
- AQ-1h Obtain NOx and particulate matter emission offsets.** SDG&E shall obtain and hold for the duration of construction NOx emission reduction credits or fund incentive programs approved by ICAPCD and SDAPCD at sufficient levels to offset the construction emissions of NOx that exceed the ozone nonattainment area federal General Conformity Rule applicability threshold. SDG&E shall secure 99 tons per year of NOx reductions and 276 tons per year of particulate matter reductions in Imperial County, and SDG&E shall secure 212 tons per year of NOx reductions in San Diego County to satisfy this requirement. The emission reduction credits or incentive program shall comply with ICAPCD and SDAPCD rules and regulations, and the credits or reductions shall be obtained by SDG&E prior to commencing construction.
- AQ-3a Offset emission increases of PM10 and ozone precursors.** The power plant operator shall achieve emission reductions in PM10, PM2.5, or particulate matter precursors and ozone precursors to fully offset the emission increases associated with biomass/biogas or fossil fuel-fired electrical generation facilities.
- AQ-4a Offset construction-phase greenhouse gas emissions with carbon credits.** SDG&E shall obtain and hold for the duration of project construction sufficient carbon credits to fully offset construction-phase greenhouse gas emissions. During construction SDG&E shall report to the CPUC quarterly the status of efforts to obtain banked credits and the quantity of construction-phase greenhouse gas emissions offset by credits. At a minimum, SDG&E shall obtain and hold carbon credits to offset 55,000 tons of carbon dioxide emissions for each of the two years of construction.

- AQ-4b**     **Offset operation-phase greenhouse gas emissions with carbon credits.** SDG&E shall 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 obtained and held each year, SDG&E must develop a complete GHG inventory annually. 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. 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.
- AQ-4c**     **Avoid sulfur hexafluoride emissions.** 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.
- AQ-4d**     **Offset greenhouse gas emissions from power generation with carbon credits.** The power plant operator shall obtain and hold sufficient carbon credits to fully offset operational-phase greenhouse gas emissions. The power plant operator shall annually report to the CPUC the status of efforts to obtain banked credits and the quantity of greenhouse gas emissions offset by credits.

## Water Resources

- H-1a** **Prepare Substation Grading and Drainage Plan; construct during the dry season.** Prior to construction of new substations, a grading and drainage plan, with SWPPP for construction and post-construction BMPs (as defined by the RWQCB), shall be prepared and submitted to the CPUC and RWQCB for review and approval. All grading for the substation shall occur during the dry season months. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains.
- H-1a(CC)** **Construct during the dry season.** All construction of the Chocolate Canyon Option shall occur during the dry season months. Approved drainage control and erosion control BMPs shall be in place prior to the normal onset of winter rains. Implement the City of San Diego Source Water Protection Guidelines for New Development (2004) that describes procedures for minimizing the adverse water quality effect of new development near water supply reservoirs such as El Capitan. These guidelines specify best management practice procedures to be used by the development, which would include the Chocolate Canyon Option.
- H-1b** **Construction in Los Peñasquitos Canyon Preserve to be in the dry season; SWPPP to be reviewed and approved by San Diego County and City of San Diego.** Construction within the Los Peñasquitos Canyon Preserve (the Preserve) shall occur during the summer (dry season) months. Project construction plans and the SWPPP for project construction shall be submitted to the CPUC, the City of San Diego and the County of San Diego for review and approval prior to construction. The SWPPP shall address erosion and sedimentation control, groundwater dewatering procedures, hazardous materials identification, handling, disposal and emergency spill procedures, and any other best management procedures necessary to prevent contaminants from entering the waters of the preserve, including consideration of using directional drilling. Construction activities within the Preserve shall be open to City and County monitors who shall have the authority to ensure compliance with the approved SWPPP.
- H-1c** **Minimize construction and maintenance disturbance to riparian areas.** 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. [WQ-APM-1]
- H-1d** **Avoid watercourses to the maximum extent possible.** To the extent feasible, structures shall be placed so as to avoid sensitive features such as watercourses, or to allow conductors to clearly span the features, within limits of safety and standard structure design. [WQ-APM-2]
- H-1e** **Identify and mark sensitive areas for avoidance.** Specific sites as identified by authorized agencies (e.g., fragile watersheds) where construction equipment and vehicles are not allowed shall be clearly marked on-site before any construction or surface disturbing activities begin. Construction personnel shall be trained to recognize these markers and understand the equipment movement restrictions involved. [WQ-APM-3]

**H-1f      Develop and implement construction Best Management Practices.**

1. Adequate distance from stream banks and beds will be maintained during construction activities.
2. Construction activities will use existing bridges to cross major streams and culverts in most dry intermittent streams.
3. Surface water, riparian areas and floodplains will be spanned where feasible.
4. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared and implemented.
5. Storm Water Best Management Practices (BMPs) for construction will be implemented per the requirements of the project's SWPPP.
6. Silt fencing, straw mulch, straw bale check dams would be installed as appropriate to contain sediment within construction work areas and staging areas. Where soils and slopes exhibit high erosion potential, erosion control blankets, matting, and other fabrics and/or other erosion control measures.
7. The potential for increased sediment loading will be minimized by limiting road improvements to those necessary for project construction, operation and maintenance.
8. Upland pull sites will be selected to minimize impacts to surface waters, riparian areas, wetlands and floodplains.
9. Structures will not be placed in streambeds or drainage channels to the extent feasible. [WQ-APM-4]

**H-1g      Stream crossings at low flow periods.** Any stream crossings will be constructed at low flow periods and, if necessary, a site-specific mitigation and restoration plan would be developed. [WQ-APM-5]

**H-1h      Compliance with NPDES regulations.** Secure any required General Permit for Storm Water Discharges Associated with Construction Activity (NPDES permit) authorization from the State Water Resources Control Board and/or the RWQCB to conduct construction-related activities to build the project and establish and implement a SWPPP during construction to minimize hydrologic impacts. [WQ-APM-14]

**H-1i      Construction routes to avoid and minimize disturbance to stream channels.** To the extent feasible, where the construction of access roads would disturb sensitive features such as streambeds, the route of the access road would be adjusted to avoid such impacts. Whenever practicable, construction and maintenance traffic would use existing roads or cross-country access routes (including the ROW) which avoid impacts to the sensitive feature. To minimize ground disturbance, construction traffic routes will be clearly marked with temporary markers such as easily visible flagging. Construction routes, or other means of avoidance, must be approved by the appropriate agency or landowner before use. Where it is not feasible for access roads to avoid streambed crossings, such crossings would be built at right angles to the streambeds whenever feasible. Where such crossings cannot be made at right angles, SDG&E would limit roads constructed parallel to streambeds to a maximum length of 500 feet at any one transmission line crossing location. Such parallel roads would be constructed in such a manner that minimizes potential adverse impacts on waters of the U.S. or waters of the state. Streambed crossings or roads constructed parallel to streambeds would require review and approval of necessary permits from the ACOE, CDFG, and SWRCB/RWQCB. [WQ-APM-15]

**H-1j Construct Santa Ysabel SR79 All Underground Alternative using directional drill where adjacent to or beneath Carrista Creek and other water crossings with greater than 500 feet of disturbance.** Directional drilling shall be used to construct those portions of the Santa Ysabel SR79 All Underground Alternative where the alternative will be adjacent to or beneath Carrista Creek and other crossings. A site-specific SWPPP shall be prepared for this operation which addresses the potential for accidental release of drilling mud and defines steps for immediate cessation of drilling in the event of a release.

**H-1k Comply with Forest Service conditions.** Where the power line crosses Forest Service property, the following conditions, or others defined by the Forest Service, based on consultation, shall be complied with:

- The Forest Service reserves the right, after notice and opportunity for comment, to modify project conditions, if necessary, to respond to any Final Biological Opinion issued for this project by the United States Fish and Wildlife Service, NOAA Fisheries, or any Certification or permit issued for this Project by the State Water Resources Control Board or Army Corps of Engineers.
- Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the California Public Utilities Commission a plan approved by the Forest Service for hazardous substances storage, spill prevention, and spill cleanup for project facilities on or directly affecting National Forest System Lands. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and cleanup is needed.
- At a minimum, the plan must require the Licensee to (1) maintain in the project area, or at an alternative location approved by the Forest Service, a cache of spill cleanup equipment suitable to contain any spill from the project; (2) to periodically inform the Forest Service of the location of the spill cleanup equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and Licensee adjoining property when such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts.
- The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, and approved construction and staging areas, as identified in a Road and Traffic Management Plan developed by the Licensee. The Forest Service reserves the right to close any and all such routes where damage (impacts beyond the expected and approved disturbance) is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the Public Utilities Commission prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.

- During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Public Utilities Commission an Erosion Control Measures Plan that is approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement attributable to the project.

The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include:

1. A description of the actual site conditions
2. Detailed descriptions, design drawings, and specific topographic locations of all control measures
3. Measures to divert runoff away from disturbed land surfaces
4. Measures to collect and filter runoff over disturbed land surfaces
5. Revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources
6. Measures to dissipate energy and prevent erosion
7. A monitoring and maintenance schedule.

Upon Commission approval, the Licensee shall implement the plan.

- Ground disturbing activities may proceed only after appropriate NEPA analysis and documentation completion. If the licensee proposes new activities to the Public Utilities Commission not previously addressed in the Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. The licensee shall enter into a cost recovery agreement with the Forest Service under which the licensee shall fund the Forest Service staff time required for staff activities related to the analysis, documentation and administration of the proposed activities.
- Ground disturbing activities may proceed only after appropriate NEPA analysis and documentation completion. If the licensee proposes new activities to the Commission not previously addressed in the Public Utilities Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. The licensee shall enter into a cost recovery agreement with the Forest Service under which the licensee shall fund the Forest Service staff time required for staff activities related to the analysis, documentation and administration of the proposed activities.
- The Licensee shall within 6 months after license issuance file with the Public Utilities Commission a Water Resources Management Plan that is approved by the Forest Service, for the purpose of controlling and monitoring the project-related effects to water resources on National Forest System lands, which are related to the Licensee's activities. The purpose of the plan is to protect groundwater related surface water and other groundwater-dependent resources.

- Within one year of license issuance the Licensee shall file with the Public Utilities Commission a plan approved by the Forest Service for the management of groundwater and the associated surface waters on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for groundwater extraction or contamination and related effects to surface water resources.

**H-1l Construction on Forest Service land to be subject to an approved, site-specific SWPPP and Sediment Control Plan.** A site-specific sediment control plan and SWPPP shall be prepared for construction within the National Forest. These plans shall identify and characterize potentially affected water resources and provide site-specific remedies to minimize project-related sedimentation, as well as provide post-construction remediation and monitoring details. The sediment control plan shall include construction in the dry period, as well as construction by helicopter in areas where terrain is steep and the potential consequences of sedimentation severe. These plans shall be submitted to the Forest Service and CPUC for review and approval prior to construction.

**H-1m Poway Creek crossing to be overhead in the existing bridge or directionally drilled rather than trenched.** The Poway Creek crossing in the Los Peñasquitos Canyon Preserve–Mercy Road Alternative shall be attached to the bridge or directionally drilled rather than trenched across the stream.

**H-1n Route D Alternative construction to be by helicopter.** Route D Alternative construction shall be by helicopter in areas where existing roads are not adequate for construction without extensive modification or extension. A plan for construction along this alternative route shall be submitted to the CPUC and Forest Service prior to construction describing which areas can be accessed through existing roads, which areas are to be built by helicopter, and what would be the helicopter construction procedures. This plan shall be reviewed and approved by CPUC and Forest Service prior to initiation of construction.

**H-2a Groundwater testing and treatment before disposal.**

1. In no case will groundwater removed during construction be discharged to surface waters or storm drains without first obtaining any required permits.
2. If dewatering is necessary, the water will be contained and sampled to determine if contaminants requiring special disposal procedures are present.
3. If the water tests sufficiently clean and land application is determined feasible per applicable SWRCB and RWQCB requirements, the water would be directed to relatively flat upland areas for evaporation and infiltration back to the water table, used for dust control, or used as makeup for a construction process (e.g., concrete production).
4. Water determined to be unsuitable for land application or construction use would be disposed of in another appropriate manner, such as treatment and discharge to a sanitary sewer system in accordance with applicable permit requirements or hauled offsite to an approved disposal facility. [WQ-APM-8]

**H-2b No storage of fuels and hazardous materials near sensitive water resources.** Storage of fuels and hazardous materials will be prohibited within 200 feet of groundwater supply wells and within 400 feet of community or municipal wells. [WQ-APM-9]

**H-2c Proper disposal and clean-up of hazardous materials.** Hazardous materials will not be disposed of onto the ground, the underlying groundwater, or any surface water. Totally enclosed containment will be provided for trash. Petroleum products and other potentially

- hazardous materials would be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials. In the event of a release of hazardous materials to the ground, it will be promptly cleaned up in accordance with applicable regulations. [WQ-APM-13]
- H-3a Detect and avoid groundwater with project excavations.** Groundwater levels along the underground portion of the project will be tested by drilling pilot borings. The location, distribution, or frequency of such tests shall be determined to give adequate representation of the conditions. Locations where groundwater depth is less than eight feet below ground surface shall be identified prior to excavation activities and avoided, where possible. Avoidance is especially recommended where shallow groundwater flow direction is not parallel to the orientation of the alignment. Where avoidance is not possible, SDG&E shall consider constructing underground facilities in a shallower excavation, depending upon requirements of the underground method or existing underground facilities and other practical concerns. SDG&E shall document results of test drilling in a letter report to the CPUC construction starts and shall propose specific measures to minimize the impact on groundwater. [WQ-APM-11]
- H-3b Minimize impacts from road construction.** To the extent possible, BMPs and sound road design practices that are cognizant of road construction effects shall be carried out to mitigate partly for the inherent effects of road construction on groundwater. In certain situations, there is no cost-effective alternative or mitigation for the adverse effects of hillslope road cuts on local groundwater. Transmission towers shall be installed via helicopter in areas with slopes greater than 15 percent to minimize the potential effects of road cuts on groundwater.
- H-4a Avoid using source water and provide alternative sources where avoidance is not possible.** 1. Designated surface water protection areas (source water) will be avoided. 2. There will be no diversions, detention, retention or consumption of surface waters for the project. 3. Prior to construction, interviews would take place with affected landowners regarding location of water supply wells located on their property. 4. SDG&E will negotiate with affected landowner to provide alternative water supplies in the event a supply well or springs dry up directly caused by project activities.
- H-5a Install substation runoff control.** The pad for new substations shall be constructed with a pervious and/or high-roughness (for example, gravel) surface where possible to ensure maximum percolation of rainfall after construction. Detention/retention basins shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency). Downstream drainage discharge points shall be provided with erosion protection and designed such that flow hydraulics exiting the site mimics the natural condition as much as possible. A drainage design hydrologic and hydraulic analysis shall be provided to the CPUC for review and approval prior to the initiation of construction.
- H-6a Scour protection to include avoidance of bank erosion and effects to adjacent property.** A determination of towers requiring scour protection under WQ-APM-10 shall be made during the design phase by a registered professional engineer with expertise in river mechanics. All towers within the project shall be reviewed by the river mechanics engineer and the foundations of those towers determined to be subject to scour or lateral movement of a stream channel shall be protected by burial beneath the 100-year scour depth, setbacks from the channel bank, or bank protection as determined by the river mechanics engineer. An evaluation shall also be made regarding the potential for the tower and associated struc-

- tures to induce erosion onto adjacent property. Should the potential for such erosion occur, the tower location shall be moved to avoid this erosion, or erosion protection (such as rip rap) provided for the adjacent property. This evaluation, and associated scour/erosion protection design plans, shall be submitted to the CPUC for review and approval 60 days prior to the initiation of construction of the towers.
- H-7a**     **Develop Hazardous Substance Control and Emergency Response Plan for project operation.** SDG&E shall prepare and implement a Hazardous Substance Control and Emergency Response Plan for project operation, and a copy shall be kept onsite at substations. This plan shall include definition of an emergency response program to ensure quick and safe cleanup of accidental spills, including prescriptions for hazardous-material handling to reduce the potential for a spill during construction. The plan will identify areas where refueling and vehicle-maintenance activities and storage of hazardous materials, if any, will be permitted. These directions and requirements will also be reiterated in the project SWPPP. SDG&E shall submit this Response Plan to the CPUC and BLM for review and approval at least 60 days before construction.
- H-8a**     **Bury power line below 100-year scour depth.** At locations where the buried power line is to be at or adjacent to a stream bed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour which, for purposes of this mitigations measure, also includes lateral (streambank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing. During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event. Plans for burying the line below the 100-year scour depth, or otherwise protecting the line from erosion, shall be submitted to CPUC for review and approval prior to construction.
- H-8b**     **Consider Los Peñasquitos Canyon scour and erosion potential in power line design.** At locations where the buried power line is to be adjacent to Los Peñasquitos Canyon (approximately between MPs 145 and 146.5), the scour and erosion potential for Los Peñasquitos Canyon shall be considered in the design as determined by a registered professional engineer with expertise in river mechanics. Design considerations, which may include burial depth below the adjacent scour depth, extra setbacks, bank protection, or demonstration that the project as proposed will be reasonably safe from Peñasquitos Canyon scour and erosion, shall be reviewed and approved by the CPUC, City of San Diego and County of San Diego prior to the start of construction.
- H-9a**     **Offset water for operation of Solar Thermal plant.** Water necessary for operations, approximately 300,000 gallons, would need to be offset to avoid contributing to the depletion of the Borrego Valley Aquifer. This could potentially be through purchasing existing land with water use and then retiring the water use or by trucking water in from a different source.
- H-9b**     **Compensate affected water supply.** Should destabilization of artesian groundwater serving as water supply occur, the proponent shall compensate delivery of additional water supply in consultation with EVMWD.
- H-12a**    **Isolate underground powerhouse from groundwater flows.** The applicant shall use a combination of sealing and water control sumps to isolate the powerhouse from underground flows. The applicant shall ensure that groundwater flow patterns at the proposed Santa Rosa site are not adversely affected.

**H-14a**     **Develop and implement a water spill, release, and/or leak prevention plan.** At least 60 days prior to construction of the upper reservoir, the applicant shall file with the CPUC and EVMWD a plan for protection of the San Juan Creek Watershed from any water spill, release, and/or leak. The plan shall be reviewed and approved by the CPUC and EVMWD prior to initiation of construction activities. At a minimum, the plan must require the Licensee to (1) maintain the project area sealed off from the San Juan Creek Watershed during construction and operation of the project; (2) to periodically test the upper reservoir for any leaks, releases, and/or spills; (3) to inform the CPUC and EVMWD immediately of the nature, time, date, location, and action taken for any spill affecting the San Juan Creek Watershed; and (4) establish a protocol for cleanup and monitoring any spill, release, and or leak that must be reviewed and approved by the CPUC and EVMWD.

## Geology, Mineral Resources, and Soils

- G-1a** **Limit modification of access roads.** Widening or upgrading of existing access roads will be limited in areas where soils are very sensitive to disturbance to the extent feasible
- G-1b** **Implement erosion control procedures.**
1. Vehicle and construction equipment use will be restricted to access roads and areas in the immediate vicinity of construction work sites to help reduce soil disturbance.
  2. In agricultural areas, topsoil would be left in roughened condition.
  3. When practical, construction activities will be avoided on wet soil to reduce the potential for soil compaction, rutting, and loss of soil productivity.
  4. Disturbed areas will be returned to their pre-construction contours and allowed to revegetate naturally, or will be reseeded with an appropriate seed mixture if necessary.
  5. Construction of access roads in inaccessible terrain will be reduced by using helicopters to place structures in select locations.
- G-1c** **Avoid new disturbance, erosion, and degradation.** Project construction activities will be designed and implemented to avoid or minimize new disturbance, erosion on manufactured slopes, and off-site degradation from accelerated sedimentation. Maintenance of cut and fill slopes created by project construction activities would consist primarily of erosion repair. Where revegetation is necessary to improve the success of erosion control, planting or seeding with native seed mix would be done on slopes. [GEO-APM-5]
- G-1d** **Restore surfaces for erosion control and revegetation.** In areas where ground disturbance is substantial or where re-contouring is required (e.g., marshaling yards, tower sites, spur roads from existing access roads), surface restoration will occur as necessary for erosion control and revegetation. The method of restoration will normally consist of returning disturbed areas back to their original contour, reseeding (if required), installing cross drains for erosion control, placing water bars in the road, and filling ditches for erosion control. Potential for erosion will be minimized on access roads and other locations primarily with water bars. The water bars will be constructed using mounds of soil shaped to direct the flow of runoff and prevent erosion. Soil spoils created during ground disturbance or re-contouring shall be disposed of only on previously disturbed areas, or used immediately to fill eroded areas. Cleared vegetation can be hauled off-site to a permitted disposal location, or may be chipped or shredded to an appropriate size and spread in disturbed areas of the ROW with the approval of the biological monitor. To limit impact to existing vegetation, appropriately sized equipment (e.g., bulldozers, scrapers, backhoes, bucket-loaders, etc.) will be used during all ground disturbance and re-contouring activities. [GEO-APM-6]
- G-1e** **Minimize road construction.** Any temporary roads developed for the project would be removed, recontoured, and revegetated following construction except where the USFS authorizes continued use of the roads for transmission line maintenance, eliminating long-term impacts from temporary roads.
- G-2a** **Protect desert pavement.** Grading for new access roads or work areas in areas covered by desert pavement shall be avoided or minimized. If avoidance of these areas is not possible, the desert pavement surface shall be protected from damage or disturbance from construction vehicles by use of temporary mats placed on the ground surface. A plan for identification and avoidance or protection of sensitive desert pavement shall be prepared and

submitted to the CPUC and BLM for review and approval at least 60 days prior to start of construction. The plan shall define how protective measures will prevent destruction of desert pavement.

- G-3a Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design.** The design-level geotechnical studies to be performed by the Applicant shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures for protection of reinforcement, concrete, and metal-structural components against corrosion shall be utilized, such as use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and ASTM standards for field and laboratory testing. Study results and proposed solutions shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.
- G-3b Avoid structure placement in high shrink/swell areas.** Structure placement in areas of high shrink/swell potential will be avoided to the extent feasible. [GEO-APM-3]
- G-4a Reduce effects of groundshaking.** The design-level geotechnical investigations performed by the Applicant shall include site-specific seismic analyses to evaluate the peak ground accelerations for design of project components. Based on these findings, project structure designs shall be modified/strengthened, as deemed appropriate by the project engineer, if the anticipated seismic forces (high calculated peak vertical and horizontal ground accelerations due to severe groundshaking) are found to be greater than anticipated wind load stresses on project structures. Study results and proposed design modifications shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.
- G-4b Conduct geotechnical investigations for liquefaction.** Because seismically induced liquefaction-related ground failure has the potential to damage or destroy project components, the design-level geotechnical investigations to be performed by the Applicant shall include investigations designed to assess the potential for liquefaction to affect the approved project and all associated facilities, specifically at tower locations in areas with potential liquefaction-related impacts. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the project designs as deemed appropriate by the project engineer. Design measures that would mitigate liquefaction-related impacts could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in cables to allow ground deformations without damage to structures. Study results and proposed solutions to mitigate liquefaction shall be provided to the CPUC and BLM for review and approval at least 60 days before final project design.
- G-5a Minimize project structures within active fault zones.** Prior to final project design SDG&E shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially active faults crossed by the project route. For crossings of active faults, the project design shall be planned so as not to locate towers or other project

structures on the traces of active faults and in addition project components shall be placed as far as feasible outside the areas of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to the start of construction.

**G-5b Minimize substation structures within active fault zones.** SCE shall perform a geologic/geotechnical study to confirm the location of mapped traces of active and potentially active faults crossing the Central East Substation site. If active fault traces are identified by this study, the control building placement at the substation shall follow setback as required by California and San Diego County building codes. Other substation facilities and structures shall be placed so as not to straddle the active fault traces and shall be placed as far as feasible outside the area of mapped fault traces. Compliance with this measure shall be documented to the CPUC and BLM in a report submitted for review and approval at least 60 days prior to final project design.

**G-5c Minimize Damage to Underground Transmission Lines.** Site-specific geotechnical investigations will be performed at locations where underground portions of the SYAU transmission line route crosses and is within the Elsinore Fault Zone and may intersect fault traces. Where significant potential for fault surface rupture is identified, appropriate engineering measures, such as installing breakaway connections and strategically locating splice boxes outside of the fault zone, will be implemented to protect sensitive equipment and limit the extent of potential repairs. Additionally, underground crossing of the active fault traces shall be made as close to perpendicular to the fault as possible to make the segment cross the shortest distance within an active fault zone and cable vaults on either side of the fault shall be oversized, leaving as much slack as possible in the cables to absorb any offset.

Operation and maintenance measures will be implemented to prepare for potential fault-rupture scenarios and facilitate timely repair of facilities. Preparation measures will include, but not be limited to, storage and maintenance of spare parts and equipment that may be needed to repair or temporarily bypass portions of the transmission line damaged as a result of fault surface rupture. Spare parts and equipment would be stored at the nearby Santa Ysabel Substation or other nearby facilities.

**G-6a Conduct geotechnical surveys for landslides and protect against slope instability.** The design-level geotechnical surveys conducted by the Applicant shall perform slope stability analyses in areas in areas of planned grading and excavation that cross and are adjacent to hills and mountains. These surveys will acquire data that will allow identification of specific areas with the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in other areas of ground disturbance, such as grading for access and spur roads. The investigations shall include an evaluation of subsurface conditions, identification of potential landslide hazards, and provide information for development of excavation plans and procedures. If the results of the geotechnical survey indicate the presence of unstable slopes at or adjacent to Proposed Project structures, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or re-graded access roads, work areas, and project structures during and after construction, and to minimize potential for damage to project facilities. These design measures shall include, but are not limited to, retaining walls, visquene, removal of unstable materials, and avoidance of highly unstable areas. SDG&E shall document compliance with this measure prior to the final project design by

- submitting a report to the CPUC for review and approval at least 60 days before construction. The report shall document the investigations and detail the specific support and protection measures that will be implemented.
- G-6b Place structures in stable areas.** Structures will be placed in geologically stable areas, avoiding fault lines, brittle surface rock and bedrock, etc. to the extent feasible. [GEO-APM-4]
- G-6c Avoid or remove unstable slope elements.** During construction, SDG&E would remove or stabilize boulders uphill of structures that pose potentially high risk of landslide damage to those structures and would position structures to span over potential landslide areas to the extent feasible. [GEO-APM-8]
- G-9a Coordinate with quarry operations.** Operations and management personnel for quarries within the project route shall be consulted regarding locations of active mining and for coordination of construction activities in and through those areas. A plan to avoid or minimize interference with mining operations shall be prepared in conjunction with mine/quarry operators prior to construction. SDG&E shall document compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 prior to the start of construction. (Future Transmission System Expansion of the Proposed Project)
- G-9a Coordinate with quarry operations.** SDG&E shall coordinate with operations and management personnel, and with BLM, to determine status of and plans for active quarries adjacent to or crossed by project alignments. SDG&E shall develop a plan to avoid or minimize interference with mining operations in conjunction with mine/quarry operators prior to construction, and submit it for review and approval to the BLM and CPUC. If mine operators are out of compliance with BLM lease requirements, SDG&E shall coordinate with all parties to resolve the situation and shall demonstrate compliance with this measure prior to the start of construction by submitting the plan to the CPUC and BLM for review at least 60 prior to the start of construction. If active mining areas require a reroute of the existing SWPL or the Interstate 8 Alternative route, SDG&E shall provide a detailed map documenting proposed new tower and access road location(s), as well as a summary of environmental impacts that would occur (biological and cultural resources surveys must be completed). (Interstate 8 Alternative)

## Socioeconomics, Services, and Utilities

- S-2a Notify public of utility service interruption.** Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the CPUC and BLM.
- S-2b Protect underground utilities.** Prior to construction of the underground transmission line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following:
- Construction plans designed to protect existing utilities and showing the dimensions and location of the finalized alignment
  - Records that the Applicant provided the plans to affected jurisdiction for review, revision and final approval
  - Evidence that the project meets all necessary local requirements
  - Evidence of compliance with design standards
  - Copies of any necessary permits, agreements, or conditions of approval
  - Records of any discretionary decisions made by the appropriate agencies.
- S-2c Coordinate with utility providers.** SDG&E has and will continue to coordinate with all utility providers with facilities located within or adjacent to the Proposed Project to ensure that design does not conflict with other facilities. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased right-of-way, franchise agreement, or joint use agreement. [PSU-APM-1]
- S-3a Recycle construction waste.** To comply with the Integrated Waste Management Act of 1989, during project construction SDG&E and/or its construction contractor shall recycle a minimum of 50 percent of the waste generated during construction activities. Following the completion of construction activities, SDG&E shall provide the CPUC and BLM with documentation from the recycling and landfill facilities used to show that the amount of waste recycled was 50 percent or more.
- S-3b Use reclaimed water.** SDG&E shall coordinate with local water districts in advance in order to efficiently obtain reclaimed or potable water for delivery to the construction sites and to meet any restrictions imposed by them. The Applicant shall provide a letter describing the availability of reclaimed water and efforts made to obtain it for use during construction to the CPUC and BLM a minimum of 60 days prior to the start of construction.
- S-3c Ensure adequate law enforcement and safety personnel.** SDG&E shall consult with ABDSP and shall provide additional personnel, equipment, and/or funding for increased patrol and law enforcement and public safety services, the number of personnel to be determined as deemed necessary to maintain existing levels of service as a result of increased public access from new access and spur roads. A summary of the final outcome of these negotiations shall be submitted to the CPUC and BLM at least 60 days prior to completion of construction within ABDSP.

**S-3d**      **Coordinate construction schedule with emergency services.** SDG&E will coordinate construction schedules, lane closures, and other activities with installation of the project with emergency and police services to ensure that disruption to response times and access is minimized. [PSU-APM-3]

## Fire and Fuels Management

**F-1a Develop and implement a Construction Fire Prevention Plan.** SDG&E shall develop a multi-agency Construction Fire Prevention Plan for the SRPL and monitor construction activities to ensure implementation and effectiveness of the plan. Plan reviewers shall include: CPUC, CAL FIRE, San Diego and Imperial Counties, BLM, CNF, and City fire agencies. SDG&E shall provide a draft copy of this Plan to each listed agency at least 90 days before the start of any construction activities. Comments on the Plan shall be provided by SDG&E to all other participants, and SDG&E shall resolve each comment in consultation with CAL FIRE. The final Plan shall be approved by CAL FIRE at least 30 days prior to the initiation of construction activities. SDG&E shall fully implement the Plan during all construction and maintenance activities.

All construction work on the SRPL shall follow the Construction Fire Prevention Plan guidelines and commitments, and Plan contents are to be incorporated into the standard construction contracting agreements for the construction of the SRPL. Primary Plan enforcement responsibility shall remain with SDG&E.

At a minimum, Plan contents shall include the requirements of Title 14 of the California Code of Regulations, Article 8 #918 "Fire Protection" (Refer to Section D.15.3), all components of the draft SDG&E Draft Fire Plan in Appendix 3D, and the elements listed below:

- During the construction phase of the project, SDG&E shall implement ongoing fire patrols during the fire season as defined each year by local, State, and federal fire agencies. These dates vary from year to year, generally occurring from late spring through dry winter periods.
- Fire Suppression Resource Inventory – In addition to CCR Title 14, 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and onsite fire suppression equipment, tools, and personnel list on quarterly basis and provide it to the CPUC, BLM, and to State and federal fire agencies.
- During Red Flag Warning events, as issued daily by the National Weather Service in SRAs and Local Responsibility Areas (LRA), and when the USFS Project Activity Level (PAL) is Very High on CNF (as appropriate), all construction and maintenance activities shall cease. Exception for transmission line testing: A transmission line may be tested, one time only, if the loss of another transmission facility could lead to system instability or cascading outages. Utility and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF.
- All construction crews and inspectors shall be provided with radio and cellular telephone access that is operational along the entire length of the approved route to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition.
- Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect.

- Each member of the construction crew shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 yards of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Plan.

**F-1b Finalize and implement SDG&E 2006 Draft Fire Plan for Electric Standard Practice.** The draft SDG&E Plan is presented in Appendix 3D. SDG&E shall finalize and adopt this plan for Company-wide implementation, and the Final Plan shall, at a minimum, include all of the provisions of the Draft 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 approval by the following agencies at least 90 days prior to energizing the Proposed Project: CPUC, BLM, CAL FIRE, U.S. Forest Service, and ABDSP.

**F-1b(LE) Finalize and implement SDG&E 2006 Draft Fire Plan for Electric Standard Practice.** (modify to apply to another proponent if needed)

**F-1c Ensure coordination for emergency fire suppression.** SDG&E shall ensure that personnel, construction equipment, and aerial operations do not create obstructions to firefighting equipment or crews. The following provisions shall be defined based on consultation with fire agencies.

Onsite SDG&E and contracted personnel shall coordinate fire suppression activities through the active Fire Incident Commander, and emergency ingress and egress to construction-related access roads shall remain unobstructed at all times.

Construction in the work area shall cease in the event of a fire within 1,000 feet of the work area. The work area includes 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. SDG&E shall contact CAL FIRE and CNF dispatch seven days prior to helicopter use and shall provide dispatch centers with radio frequencies being used by the aircraft, aircraft identifiers, the number of helicopters that will be used while working on or near SRA and CNF lands at any given time, and the flight pattern of helicopters to be used. Should a wildfire occur within one (1) mile of the work area, upon contact from the CAL FIRE Incident Commander and/or Forest Aviation Officer, helicopters in use by SDG&E shall immediately cease construction activities and not restart aerial operations until authorized by the appropriate fire agency.

**F-1d Remove hazards from the work area.** The Applicant shall clear brush and dead and decaying vegetation from the work area prior to starting construction and/or maintenance work. The work area includes 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 vegetation shall either be removed or chipped and spread onsite in piles no higher than six (6) inches.

**F-1e Contribute to defensible space grants fund.** 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 set forth in 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. The mechanism for grants distribution shall be determined through agency negotiations and detailed in the Memorandum of Understanding (Mitigation Measure F-3b).

**F-2a**     **Establish and maintain adequate line clearances.** 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. 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.

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.

**F-2b**     **Install existing conductors on steel poles.** Where construction of the Proposed Project or an alternative would result in the relocation of existing 69 kV transmission lines, these lines shall be relocated onto steel poles using vertical conductor construction. Also, all existing 69 kV or distribution lines with poles located within 100 feet of the Proposed Project or alternative shall be reconstructed so the existing conductors are on steel poles using vertical conductor construction to eliminate pole combustion hazard potential, increase wind loading capacity, and reduce mid-line slap ignition potential. This measure shall not apply to conductors that would be underbuilt on steel poles or lattice towers or installed underground.

**F-3a**     **Construct and maintain fuelbreaks.** SDG&E shall construct and maintain fuelbreaks at targeted locations along the transmission line where significant conflicts with fire containment are created. SDG&E shall purchase or secure by other means complete and total vegetation management rights for the life of the project for the area within ¼ miles of the transmission centerline between project mileposts shown in Table D.15-26.

The fuelbreak design plans shall be submitted to CPUC, BLM, ABDSP, and U.S. Forest Service, as appropriate, for review and approval at least 90 days before the commencement of project construction. Vegetation fuel load in the fuel break shall be reduced to and maintained at a level not to exceed 12 tons/acre as determined by the National Wildfire Coordination Group Stereo Photo Series for Quantifying Natural Fuels for the appropriate vegetation type series. Fuelbreaks shall be constructed prior to transmission line energizing. The following fuelbreak performance criteria are to be met:

- At its most intensive, vegetation reduction shall be carried out to maintain a native grass cover to minimize water quality impacts due to erosion and sedimentation. In addition, vegetation on slopes greater than 45% shall be limited to hand treatment of hazardous trees to avoid causing erosion.

- Herbicidal treatments shall be restricted to ground-based applications. A colorant or dye shall be added to the herbicide mixture to determine location of coverage. A surfactant shall be added to the herbicide mixture to facilitate targeted absorption. Herbicide applications shall be performed by licensed professionals in accordance with each material's label instructions and in compliance with Sempra's "Physical and Climatic Target Area Evaluation Form."
- Dead and decaying vegetation within the Wire Zone (ROW) shall be cut to 18 inches or less in height, and removed or chipped and spread onsite in piles no higher than six (6) inches.
- Trees greater than four (4) inches DBH, except those whose crowns are separated from other tree crowns by at least 150 feet in all directions, shall be removed and treated with herbicidal and fungicidal stump applications; communities of shrubs greater than 1,000 square feet and greater than five (5) feet tall shall be thinned or removed; and, dead and decaying vegetation shall be cut to 18 inches or less in height or removed. All cut vegetation shall be either removed or chipped and spread onsite in piles no higher than six (6) inches.
- SDG&E shall develop and implement a post-fire assessment protocol, which shall include site inspection and vegetation inventory, debris and hazard removal, damage assessment, site monitoring, native species restoration as appropriate, facilities redesign/reconstruction as appropriate, and adaptive modification to fuelbreak maintenance activities as appropriate.
- SDG&E shall report all fuelbreak maintenance and post-fire assessments on an annual basis to CAL FIRE or CNF as appropriate.

Should complete vegetation management rights be impossible to secure, SDG&E shall make financial contributions to either CAL FIRE or CNF (as appropriate) for offsite fuelbreak creation. The contributions shall be between \$1,000 to \$4,000 per acre for initial fuelbreak construction, plus between \$250 and \$1,000 per acre per year for fuelbreak maintenance. The exact financial contribution shall be determined by CAL FIRE or CNF based on actual costs of compensatory fuelbreak construction and maintenance as observed in the field.

**F-3b Prepare and implement a Multi-agency Fire Prevention MOU.** A Memorandum of Understanding (MOU) for the SRPL shall be created and implemented between SDG&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 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 require inter-agency coordination and assistance for the construction and regular maintenance of targeted fuel breaks in conjunction with the SRPL transmission corridor (Mitigation Measure F-3a). 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&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.

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## FERC Environmental Measures

FERC Environmental Measures (similar to the mitigation measures for the Proposed Project) were developed by the Federal Energy Regulatory Commission (FERC) as measures that would be required upon approval of the LEAPS Project as modified by staff. They can be found in Chapter Five of the FEIS (FERC Project No. 11858), pages 5-13 through 5-16. They would be required for the LEAPS Transmission-Only Alternative and for the Leaps Generation and Transmission Alternative. The numbers have been added for the purpose of this document.

- FERC-1 Environmental Measure 1—Erosion Control Plan.** Include specific provisions in the proposed erosion control plan that applies erosion control measures and BMPs to all construction locations, including the upper reservoir, drainage and flood control locations, penstock tunnels, powerhouse, tailrace, inlet/outlet structure, transmission lines, and all associated construction laydown areas and temporary on-site borrow areas for all subsequent ground disturbing activities over the term of any license issued for the project.
- FERC-2 Environmental Measure 2—Lake Elsinore Lake Operating Plan.** Develop and implement a revised lake operating plan for Lake Elsinore, addressing increased minimum lake levels, flood control implications, and water supply issues.
- FERC-3 Environmental Measure 3—Surface Water Resources Management Plan.** Develop and implement a surface water resources management plan to control and monitor project-related effects on water resources that support riparian vegetation on National Forest System lands.
- FERC-5 Environmental Measure 5—Upper Reservoir and Water Conduit Monitoring Program: Groundwater.** Include specific provisions in the upper reservoir and water conduit monitoring program to explore the groundwater and characterize the aquifer, to consult on groundwater inflow criteria, and to monitor groundwater levels during construction and operation of the water conduits including the tunnels and penstocks that convey water between the upper reservoir and the powerhouse for 10 years or longer if necessary, specifying remedial actions if monitoring reveals changes in groundwater levels or seepage into the tunnels.
- FERC-6 Environmental Measure 6—Environmental Monitoring Plan: Aquatic.** Develop and implement a detailed plan specifying activities, locations, methods and schedules that the qualified environmental construction monitor will use to monitor construction in aquatic environments.
- FERC-7 Environmental Measure 7—Entrainment Monitoring.** Conduct entrainment monitoring for 1 year and once every 5 years over the term of any license issued to the project to determine the extent of fish entrainment and mortality at the Lake Elsinore intake/outlet structures and provide the monitoring results to CDFG, FWS, the State Water Board, and the Joint Watershed Authority, and, based on the results of entrainment monitoring, develop and implement a plan to mitigate for entrainment losses through measures, such as enhancing nearshore fish habitat or stocking fish, that would aid in establishment of naturally sustaining population of desirable sport fish.
- FERC-9 Environmental Measure 9—Invasive Weed Management Plan.** Develop and implement a vegetation and invasive weed management plan to prevent and control noxious weeds and exotic plants of concern in project-affected areas during construction and over the term of any license issued for the project.

- FERC-11 Environmental Measure 11—Special Status Species Surveys.** Conduct additional pre-construction special status plant and animal surveys at transmission line tower sites and along transmission alignment access roads to ensure compliance with Western Riverside County Multi-species Habitat Conservation Plan (Multi-Species HCP).
- FERC-12 Environmental Measure 12—Habitat Mitigation Plan.** Prepare a habitat mitigation plan in consultation with the USDA Forest Service, Interior, CDFG, and Riverside County to identify appropriate mitigation of habitat losses.
- FERC-13 Environmental Measure 13—Consult with USFS.** Consult with the USFS annually to review the list of special status species and survey new areas as needed.
- FERC-14 Environmental Measure 14—Employee Awareness Training.** Develop and implement an annual employee awareness training program regarding special status plants and animals.
- FERC-15 Environmental Measure 15—Consult with USFWS.** Consult with FWS during the process of developing final design drawings on measures to protect fish and wildlife resources.
- FERC-17 Environmental Measure 17—Recreation Development Plan.** Consult with the USFS to develop and implement a recreation development facility plan for a day-use recreation facility at the construction laydown area used during the construction of the upper reservoir on National Forest System lands or for an alternative use and/or location.
- FERC-18 Environmental Measure 18—Recreation Plan.** Develop and implement a recreation plan that provides for transferring of cleared land off National Forest System lands to a local entity and developing recreational facilities at the powerhouse location and operation and maintenance (O&M) funding sufficient to operate the facilities.
- FERC-19 Environmental Measure 19—Lakebed Sediment Toxicity Plan.** Develop and implement a plan to determine the toxicity of sediments in Lake Elsinore lakebed that would be disturbed by construction of the intake/outlet structure and to provide for appropriate handling and disposal if toxins are identified in the lakebed sediment prior to beginning construction of the intake/outlet structure in Lake Elsinore.
- FERC-20 Environmental Measure 20—Scenery Conservation Plan.** Prepare and implement a scenery conservation plan to achieve the greatest consistency possible with the High Scenic Integrity Objectives of the Cleveland National Forest Land Management Plan.
- FERC-21 Environmental Measure 21—Balance of Excavation and Fill.** Achieve the balance of excavation and fill material at the upper reservoir site (through additional excavation) and dispose of other excavation materials from the construction of project facilities (except the upper reservoir) off site.
- FERC-22 Environmental Measure 22—Traffic Management Plan: Forest.** Include in the proposed road and traffic management plan applicable to National Forest System lands provisions addressing road construction, realignment, maintenance, use, and closure and identifying the proponents' responsibility for road maintenance and repair costs.
- FERC-23 Environmental Measure 23—Traffic Management Plan: Non-Forest.** Include in the proposed road and traffic management plan applicable on non-National Forest System lands provisions addressing road construction, realignment, maintenance, use, and closure, as well as land management policies and practices associated with project-related roads during both construction and operations.

**FERC-25 Environmental Measure 25**—Revise the draft HPMP in consultation with the SHPO, Tribes, U.S. Bureau of Indian Affairs (BIA), the Lake Elsinore Historical Society, and the USFS and file a final HPMP for Commission approval within 1 year of any license issuance.

**FERC-26 Environmental Measure 26—Avian Protection.** Ensure all transmission facilities conform to APLIC et al. (1996) guidelines, including power lines to reduce risks of bird strikes. The co-applicants should conform to the April 2005 avian protection plan guidelines.

## USFS Conditions

The U.S. Forest Service mitigation Conditions outlined for each significant environmental impact were developed by the Forest Service for its Final 4(e) Terms and Conditions (Conditions) for the Lake Elsinore Advanced Pumped Storage Hydroelectric Project (FERC Project No. 11585) in accordance with 18 CFR 4.34(b)(1)(i), and these would be required upon FERC project approval and subsequent to approval of a Forest Special Use Permit, if granted. They would be required for the LEAPS Transmission-Only Alternative and for the Leaps Generation and Transmission Alternative.

**USFS-1 Condition No. 1—Requirement to Obtain a Forest Service Special-Use Authorization.** The Licensee shall secure a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands.

Ground disturbing activities on or affecting National Forest Service Lands may proceed only after the Licensee has filed the required development plans, provided any additional documentation required for the Authorized Officer to complete a site specific environmental analysis, and obtained approval for the activity from the Authorized Officer. In no case shall ground-disturbing activities authorized by the license and special-use authorization begin sooner than 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provision of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

**USFS-3 Condition No. 3—Forest Service Approval of Final Design.** Before any new construction of the project occurs on National Forest System lands, the Licensee shall obtain prior written approval of the Forest Service for all final design plans for Project components, which the Forest Service deems as affecting or potentially affecting National Forest System resources. The Licensee shall follow the schedules and procedures for design review and approval specified in the conditions herein and in the Special Use Permit. As part of such written approval, the Forest Service may require adjustments to the final plans and facility locations to preclude or mitigate impacts and to insure that the project is either compatible with on-the-ground conditions or approved by the Forest Service based on agreed upon compensation or mitigation measures to address compatibility issues. Should such necessary adjustments be deemed by the Forest Service, the Commission, or the Licensee to be a substantial change, the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions of the Secretary of Agriculture made pursuant to Section 4(e) of the Federal Power Act.

**USFS-4 Condition No. 4—Approval of Changes.** Notwithstanding any Commission approval or license provisions to make changes to the project when such changes directly affect National Forest System lands, the Licensee shall obtain written approval from the Forest Service prior to making any changes in any constructed Project features or facilities, or in the uses of Project lands and waters, or any departure from the requirements of any approved exhibits filed with the Commission. Following receipt of such approval from the

Forest Service, and at least 60 days prior to initiating any such changes or departure, the Licensee shall file a report with the Commission describing the changes, the reasons for the changes, and showing the approval of the Forest Service for such changes. The Licensee shall file an exact copy of this report with the Forest Service at the same time it is filed with the Commission. This article does not relieve the Licensee from the amendment or other requirements of Article 2 or Article 3 of this license, nor shall it affect the Licensee's obligation to comply with Commission requirements.

**USFS-5 Condition No. 5—Consultation.** Each year between February 15 and April 15, the Licensee shall consult with the Forest Service with regard to measures needed to ensure protection and utilization of the National Forest resources affected by the project. Within 60 days following such consultation, the Licensee shall file with the Commission evidence of the consultation with any recommendations made by the Forest Service. The Forest Service reserves the right, after notice and opportunity for comment, to require changes in the project and its operation through revision of the 4(e) conditions that require measures necessary to accomplish protection and utilization of National Forest resources.

When Forest Service section 4(e) conditions require the Licensee to file a plan with the Commission that is approved by the Forest Service, the Licensee shall provide the Forest Service a minimum of 60 days to review and approve the plan before filing with the Commission. Upon Commission approval, the Licensee shall implement Forest Service required and approved plans.

**USFS-6 Condition No. 6—Surrender of License or Transfer of Ownership.** Prior to any surrender of this license, the Licensee shall provide assurance acceptable to the Forest Service that Licensee shall restore any project area directly affecting National Forest System lands to a condition satisfactory to the Forest Service upon or after surrender of the license, as appropriate. The restoration plan shall identify the measures to be taken to restore National Forest System lands and shall include adequate financial mechanisms to ensure performance of the restoration measures.

In the event of any transfer of the license or sale of the project, the Licensee shall assure, in a manner satisfactory to the Forest Service, that the Licensee or transferee will provide for the costs of surrender and restoration. If deemed necessary by the Forest Service to assist in evaluating the Licensee's proposal, the Licensee shall conduct an analysis, using experts approved by the Forest Service, to estimate the potential costs associated with surrender and restoration of any Project area directly affecting National Forest System lands to Forest Service specifications. In addition, the Forest Service may require the Licensee to pay for an independent audit of the transferee to assist the Forest Service in determining whether the transferee has the financial ability to fund the surrender and restoration work specified in the analysis.

**USFS-7 Condition No. 7—Hazardous Substances Plan.** Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission a plan approved by the Forest Service for hazardous substances storage, spill prevention, and spill clean-up for Project facilities on or directly affecting National Forest System Lands. In addition, during planning and prior to any new construction or maintenance not addressed in an existing plan, the Licensee shall notify the Forest Service, and the Forest Service shall make a determination whether a plan approved by the Forest Service for oil and hazardous substances storage and spill prevention and clean-up is needed.

At a minimum, the plan must require the Licensee to (1) maintain in the project area, or at an alternative location approved by the Forest Service, a cache of spill clean-up equipment suitable to contain any spill from the project; (2) to periodically inform the Forest Service of the location of the spill clean-up equipment on National Forest System lands and of the location, type, and quantity of oil and hazardous substances stored in the project area; (3) to inform the Forest Service immediately of the nature, time, date, location, and action taken for any spill affecting National Forest System lands, and Licensee adjoining property when such spill could reasonably be expected to affect National Forest System lands, and (4) provide annually to the Forest Service a list of Licensee project contacts

**USFS-11 Condition No. 11—Road Use.** The Licensee shall confine all vehicles being used for project purposes, including but not limited to administrative and transportation vehicles and construction and inspection equipment, to roads or specifically designed access routes, and approved construction and staging areas, as identified in the Road and Traffic Management Plan (Condition No. 26). The Forest Service reserves the right to close any and all such routes where damage (impacts beyond the expected and approved disturbance) is occurring to the soil or vegetation, or, if requested by Licensee, to require reconstruction/construction by the Licensee to the extent needed to accommodate the Licensee's use. The Forest Service agrees to provide notice to the Licensee and the Commission prior to road closures, except in an emergency, in which case notice will be provided as soon as practicable.

**USFS-13 Condition No. 13—Safety during Project Construction.** Sixty days prior to ground-disturbing activity related to new project construction on or affecting National Forest System Lands, the Licensee shall file a Safety During Construction Plan with the Commission that is approved by the Forest Service that identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails and recreation area and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on or affecting National Forest System while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The inspections must specifically include fire plan compliance, public safety, and environmental protection. The Licensee shall act immediately to correct any items found to need correction to be in compliance with the license.

**USFS-15 Condition No. 15—Erosion Control Plan.** During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that is approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, dust, and soil mass movement attributable to the project.

The plan shall be based on actual-site geological, soil, and groundwater conditions and shall include:

- A description of the actual site conditions
- Detailed descriptions, design drawings, and specific topographic locations of all control measures
- Measures to divert runoff away from disturbed land surfaces

- Measures to collect and filter runoff over disturbed land surfaces, including sediment ponds at the diversion and powerhouse sites
- Revegetating disturbed areas in accordance with current direction on use of native plants and locality of plant and seed sources
- Measures to dissipate energy and prevent erosion and,
- A monitoring and maintenance schedule.

**USFS-16 Condition No. 16—Valid Claims and Existing Rights.** This license is subject to all valid rights and claims of third parties. The United States is not liable to the Licensee for the exercise of any such right or claim.

**USFS-17 Condition No. 17—Compliance with Regulations.** The Licensee shall comply with the regulations of the Department of Agriculture for activities on NFS lands, and all applicable federal, state, county, and municipal laws, ordinances, or regulations in regards to the area or operations on or directly affecting NFS lands, to the extent those laws, ordinances, or regulations are not preempted by federal law.

**USFS-18 Condition No. 18—Protection of United States Property.** The Licensee shall exercise diligence in protecting from damage the land and property of the United States covered by and used in connection with the license.

**USFS-20 Condition No. 20—Surveys, Land Corners.** The Licensee shall avoid disturbance to all public land survey monuments, private property corners, and forest boundary markers. In the event that any such land markers or monuments on National Forest System lands are destroyed by an act or omission of the Licensee, in connection with the use and/or occupancy authorized by this license, depending on the type of monument destroyed, the Licensee shall reestablish or reference same in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the County Surveyor, or (3) the specifications of the Forest Service.

Further, the Licensee shall ensure that any such official survey records affected are amended as provided by law.

**USFS-21 Condition No. 21—Damage to Land, Property, and Interests of the United States.** The Licensee has an affirmative duty to protect the land, property and interests of the United States from damage arising from the Licensee's construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license.

The Licensee is liable for all damages, costs and expenses associated with damage to the land, property and interests of the United States occasioned by the construction, maintenance, or operation of the project works or of the works appurtenant or accessory thereto under the license, including but not limited to damages, costs and expenses resulting from fire. Such damages, costs and expenses shall include, but not be limited to:

- Fire suppression costs
- Rehabilitation and restoration costs
- Value of lost resources
- Abatement costs
- Investigative and administrative expenses
- Attorneys' fees

The Licensee's liability under this condition shall not extend to acts or omissions of parties outside of the Licensee's control. Licensee's contractors or employees of contractors are not considered parties outside the Licensee's control. Damages will be determined by the value of the resources lost or impaired, as determined by the Forest Service. The basis for damages will be provided to the Licensee. The licensee shall accept transaction registers certified by the appropriate Forest Service official as evidence of costs and expenses. The Licensee shall have an opportunity to review the basis for the Forest Service's damages, costs and expenses, and to meet and confer with the Forest Service to resolve any questions or disputes regarding such damages, costs and expenses. After the opportunity for review, the Licensee shall promptly pay to the United States such damages, costs and expenses upon written demand by the United States.

**USFS-22 Condition No. 22—Risks and Hazards.** As part of the occupancy and use of the project area, the Licensee has a continuing responsibility to reasonably identify and report all known or observed hazardous conditions on or directly affecting NFS lands that would affect the improvements, resources, or pose a risk of injury to individuals. Licensee will abate those conditions, except those caused by third parties not related to the occupancy and use authorized by the License. Any non-emergency actions to abate such hazards on National Forest System lands shall be performed after consultation with the Forest Service. In emergency situations, the Licensee shall notify the Forest Service of its actions as soon as possible, but not more than 48 hours, after such actions have been taken. Whether or not the Forest Service is notified or provides consultation; the Licensee shall remain solely responsible for all abatement measures performed. Other hazards should be reported to the appropriate agency as soon as possible.

**USFS-23 Condition No. 23—Crossings.** Except as otherwise authorized, the Licensee shall maintain existing crossings as required by the Forest Service for all roads and trails that intersect the right-of-way occupied by linear project facilities (power lines, penstock, ditch, and pipeline) on or affecting National Forest System lands.

**USFS-26 Condition No. 26—Road and Traffic Management Plan.** Within one year of license issuance or prior to any ground disturbing activities, the Licensee shall file with the Commission a plan approved by the Forest Service for management of all Forest Service and unclassified roads required by the licensee to access the project area on National Forest System Lands. The Project Road and Traffic Management Plan shall include:

- Identification of all Forest Service roads and unclassified roads on National Forest System Lands needed for project access, including road numbers.
- A map of all Forest Service roads and unclassified roads on National Forest System land used for project access, including digital spatial data accurate to within 40 feet, identifying each road by Forest Service essential for review road number.
- A description of each Forest Service road segment and unclassified roads on National Forest System land needed for project access including:
  1. Termini
  2. Length
  3. Purpose and use
  4. Party responsible for maintenance
  5. Level of maintenance
  6. Structures accessed

7. Location and status of gates and barricades, if any
  8. Land status of road segment including ownership and right-of-way or easement
  9. Instrument of authorization for road use
  10. Assessment of road condition and licensee reconstruction needs
  11. Rehabilitation of temporary access disturbance
  12. Temporary access locations will be gated to prevent unauthorized public vehicle access
- Provisions for the licensee to consult with the Forest Service in advance of performing any road construction, realignment, maintenance, or closure involving Forest Service roads, or roads authorized by the Forest Service.
  - The Licensee will be required to upgrade Forest Service roads if necessary to accommodate the proposed use.
  - The Licensee shall cooperate with Forest Service on the preparation of a condition survey and a proposed maintenance plan subject to Forest Service approval annually; beginning the first full-year after the Road and Traffic Management Plan has been approved.
  - The Licensee shall use non-Forest Service roads on or affecting National Forest System lands in accordance with applicable state, county, city, and/or local authority standards. The Licensee will furnish documentation and evidence of their coordination with other road management entities. The Licensee is responsible for securing any necessary easements or right-of-way for roads on private land if Forest Service easements are not available or assignable.
  - The Road and Traffic Management Plan shall identify the licensee's responsibility for road maintenance and repair costs commensurate with the licensee's use and project-induced use. The Road and Traffic Management Plan shall specify road maintenance and management standards; that provide for traffic safety, minimize erosion and damage to natural resources, and that are acceptable to the Forest Service.
  - Licensee shall be responsible for any new construction, realignment, closure, or other road management actions proposed by the licensee in the future, subject to Forest Service standards in effect at the time, including related studies, analyses or reviews required by Forest Service.

Upon Commission approval, the Licensee shall implement the plan.

**USFS-27 Condition No. 27—Recreation Facilities and Administration.** Within one year of license issuance, the licensee shall file with the Commission a plan approved by the Forest Service for the development of recreation facilities to offset the loss of recreation opportunities on National Forest System lands associated with this project. The plan shall address the development, operation and maintenance of recreation facilities on National Forest System lands to include the project equipment and material laydown area as well as for other locations as approved by the Forest Service.

Creation of enhanced or new recreation facilities and opportunities elsewhere would help reduce the impact of removing land from recreational use. However, because land would be permanently removed from public access for Decker Canyon Reservoir, this would remain an unmitigable impact (Class I).

**USFS-28 Condition No. 28—Heritage Resources Management Plan.** The Licensee shall file with the Commission, within one year following license issuance, or prior to any ground disturbing activities, a Heritage Resources Management Plan (HRMP), approved by the Forest Service, for the purpose of protecting and interpreting heritage resources on National Forest System lands. The HRMP is tiered to a Programmatic Agreement, to which the Forest Service will be a signatory, as defined by 36 CFR 800, and implements regulations of the National Historic Preservation Act. The Licensee shall consult with the State Historic Preservation Officer, Native American Tribes, Forest Service, and other applicable agencies and communities during the preparation of the Plan. The HRMP shall accurately define the area of potential effects, including effects of implementing Section 4(e) conditions, Native American traditional cultural values, and Project-induced recreational impacts to archaeological properties on or affecting National Forest System lands. The HRMP shall also provide measures to mitigate the identified impacts, including a monitoring program, a patrolling program, and management protocols for the ongoing protection of archaeological properties.

If, prior to or during ground-disturbing activities or as a result of project operations, items of potential cultural, historical, archaeological, or paleontological value are reported or discovered, or a known deposit of such items is disturbed on National Forest System lands, the Licensee shall immediately cease work in the area affected. The Licensee shall then: (1) consult with the California State Historic Preservation Officer (SHPO) and the Forest Service about the discovery; (2) prepare a site-specific plan, including a schedule, to evaluate the significance of the find and to avoid or mitigate any impacts to sites found eligible for inclusion in the National Register of Historic Places; (3) base the site-specific plan on recommendations of the SHPO, the Forest Service, and Secretary of the Interior's Standards and guidelines for Archaeology and Historic Preservation; (4) file the site specific plan for Commission approval, together with the written comments of the SHPO and the Forest Service; and (5) take the necessary steps to protect the sites from further impact until informed by the Commission that the requirements have been fulfilled.

Upon Commission approval, the Licensee shall implement the plan.

**USFS-29 Condition No. 29—Annual Employee Awareness Training.** The licensee shall, beginning the first full calendar year after license issuance, provide annual employee awareness training in coordination with the Forest Service. The goal of the training shall be to familiarize the licensee's maintenance and operations staff with local Forest Service issues. Topics to be covered in this training include local resource issues, special status species, invasive weeds, procedures for reporting to the Forest Service, and Forest Service orders that pertain to the CNF lands in the vicinity of the project.

Information on special status species and invasive weeds and their locations in the project area shall be provided to licensee's field personnel.

**USFS-30 Condition No. 30—Special Status Species.** The Licensee shall, beginning the first full calendar year after license issuance, in consultation with the Forest Service, annually review the current list of special status plant and wildlife species (species that are, Forest Service Sensitive, CNF Watch List, or U.S. Fish and Wildlife Service Federally listed) that might occur on National Forest System Lands in the project area directly affected by project operations. When a species is added to one or more of the lists, the Forest Service, in consultation with the Licensee, shall determine if the species or un-surveyed suitable habitat for the species is likely to occur on such National Forest System Lands. For such newly added species, if the Forest Service determines that the species is likely to occur on such

National Forest System Lands, the Licensee shall develop and implement a study plan in consultation with the Forest Service to assess the effects of the project on the species. The Licensee shall prepare a report on the study including objectives, methods, results, recommended resource measures where appropriate, and a schedule of implementation, and shall provide a draft of the final report to the Forest Service for review and approval. The Licensee shall file the report, including evidence of consultation, with the Commission and shall implement those resource management measures required by the Commission.

**USFS-31 Condition No. 31—Ground Disturbing Activities.** Ground disturbing activities may proceed only after appropriate NEPA analysis and documentation completion. If the licensee proposes new activities to the Commission not previously addressed in the Commission's NEPA analysis processes, the licensee, in consultation with the Forest Service, shall determine the scope of work, and the potential project related effects and whether additional information is required to proceed with the planned ground disturbing activity. The licensee shall enter into a collection agreement with the Forest Service under which the licensee shall fund the Forest Service staff time required for staff activities related to the analysis, documentation and administration of the proposed activities.

**USFS-33 Condition No. 33—Vegetation and Invasive Weed Management Plans.** Within one year of license issuance, or prior to any ground disturbing activities, the Licensee shall file with the Commission Vegetation and Invasive Weed Management Plan approved by the Forest Service. Invasive weeds will be those weeds identified in the California Department Food and Agriculture (CDFA) code, and other non-native species of concern identified by the Forest Service and other resource agencies. The plan will address both aquatic and terrestrial invasive weeds within the project boundary and adjacent to project features directly affecting National Forest lands including recreation facilities, roads, and distribution and transmission lines.

1) The Invasive Weed Plan will include and address the following elements:

- Inventory and mapping of new populations of invasive weeds using a Forest Service compatible database and GIS software. The Invasive weed GIS data layer will be updated annually and shared with other resource agencies.
- Weed risk assessment.
- Action and/or strategies to prevent and control spread of known populations or introductions of new populations, such as public education and signing, vehicle/equipment wash stations, certified weed-free hay or straw for all construction or restoration needs and use an approved mix of plant species native to the CNF for restoration or erosion control purposes. Formulate an Integrated Pest Management approach for invasive weed control (IPM evaluates alternatives for managing forest pest populations, based on consideration of pest-host relationships).
- Assure that project staff is aware of the current location of invasive weeds and how to identify the invasive weeds likely to occur in the project area.
- Development of a schedule for control of all known A, B, Q (CDFA) and selected other invasive weed species, designated by resource agencies.
- On-going monitoring of known populations of invasive weeds for the life of the license in locations tied to Project actions or effects, such as road maintenance, at project facilities, O&M activities, recreational areas, new construction sites, etc. to evaluate the effectiveness of re-vegetation and invasive weed control measures.
- Avoid use of gravel and fill from known weed infested borrow pits.

New infestations of invasive and noxious weeds shall be controlled within 1 month of detection. At specific sites where other resource objectives need to be met (e.g. recreational use) all classes of invasive weeds may be required to be treated.

Monitoring will be done in conjunction with other project maintenance and resource surveys, so as not to require separate travel and personnel. Monitoring information, in database and GIS formats, will be provided to the Forest Service as part of the annual consultation on affected National Forest resources (Condition No. 5). To assist with this monitoring requirement, training in invasive plant identification will be provided to Project employees and contractors by the Forest Service.

Licensee shall restore/revegetate areas where treatment has eliminated invasive weeds in an effort to eliminate the reintroduction of invasive weed species. Project-induced ground disturbing activities shall be monitored annually for the first 3 years after disturbance to detect and map new populations of Invasive weeds.

2) The Vegetation Management plan shall include and/or address the following elements:

- Hazard tree removal and trimming
- Power line/transmission line clearing to comply with electrical safety and fire clearance requirements
- Vegetation management for native habitat and biodiversity improvement
- Revegetation of disturbed sites (including plant palette, planting methods, plant densities, propagation materials, and plant maintenance)
- Soil fertility and moisture analysis, soil grading, soil amendments, soil protection and erosion control, including use of certified weed free straw
- Use only clean, locally collected, weed free seed
- Irrigation amounts, methods, and schedule
- Pest treatment, monitoring, and prevention methods and schedule.

**USFS-34 Condition No. 34—Wildlife Management.** The licensee shall, within one year after license issuance, implement the following raptor/avian safety measures on National Forest System lands or on areas directly affecting National Forest System lands to maintain and enhance existing native wildlife species potentially affected by the project:

- All power lines, power stations, and other facilities on or affecting National Forest System lands shall be constructed to conform with the “Suggested Practices for Raptor Protection on Power Lines” by the Avian Power line Interaction Committee (1996), including marking the power lines themselves if they are adjacent to Lake Elsinore or in a flyway where bird strikes may occur.

**USFS-35 Condition No. 35—Surface Water Resources Management Plan.** The Licensee shall within 6 months after license issuance file with the Commission a Water Resources Management Plan that is approved by the Forest Service, for the purpose of controlling and monitoring the project-related effects to water resources on National Forest System lands, which are related to the Licensee’s activities. The purpose of the plan is to protect groundwater-related surface water and other groundwater-dependent resources. At a minimum the plan shall:

1. Develop in consultation with and approved by Forest Service technical specialists and their consultants an inventory of springs and other water courses within 1 mile of Morrell and Decker canyon and their related riparian areas. The inventory shall include water

chemistry and physical analysis in addition to monthly and annual hydrographs. Riparian areas shall be delineated and inventoried. Inventories shall include flora and fauna specific to each water source and shall also include special indicator species (i.e. spring snails), as required by the Forest Service technical specialists, which describe the overall health of the system.

2. Develop and implement in consultation with and approved by Forest Service technical specialists and their consultants a riparian vegetation and surface water monitoring plan addressing springs and other surface water courses in the canyon selected for the storage portion of the Pumped Storage Project and their associated riparian areas. Baseline data prior to initiation of the project shall be obtained for both water quantity and quality because project activities could alter groundwater levels and quality, with subsequent alteration of surface water dynamics. The surface water monitoring should include intermittent as well as any perennial systems, and should be done no less frequently than monthly. Surface water monitoring stations shall be established at locations (e.g., at bedrock outcroppings) that would be unlikely to become unusable due to sedimentation or erosion. Riparian vegetation monitoring shall include quantifying extent of riparian vegetation associated with springs, streams, and other riparian areas. The monitoring plan shall be in effect upon approval for pre-construction so that baseline data can be established and shall continue for the entire duration of the project while in construction, and for the post construction period as long as project related impacts to groundwater and/or surface waters are anticipated by the Forest Service technical specialists and their consultants.

**USFS-36 Condition No. 36—Groundwater Management Plan.** Within one year of license issuance the Licensee shall file with the Commission a plan approved by the Forest Service for the management of groundwater and the associated surface waters on or affecting National Forest System lands. The purpose of the plan shall be to reduce the potential for groundwater extraction or contamination and related effects to surface water resources. At a minimum, the Groundwater Management Plan shall:

- Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater exploration and aquifer characterization plan which includes the use of existing data as well as installation of additional exploration boreholes and monitoring wells, aquifer testing (which includes water quality) and geophysics as deemed necessary to determine baseline data, construction monitoring data and post construction monitoring data for the area potentially impacted by the project.
- Groundwater inflow criteria for tunneling will be established by the Forest Service in consultation with the proponents. Inflow criteria will be approved by the forest service prior to construction.
- Develop and implement, in consultation with and approved by the Forest Service, a plan to monitor and control groundwater levels and tunnel inflows for the duration of the construction of the penstocks and tunnels and for a minimum of 10 years post construction unless it can be determined that construction-related impacts no longer exist. This plan may include, but is not limited to, the development and use of a groundwater model as well as the installation and use of in-tunnel piezometers, monitoring wells, and seepage collars (or other means to control longitudinal flows along the tunnel).
- Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater testing and monitoring program for the lined reservoir which will detect seepage from the reservoir into the groundwater and riparian areas. This monitoring program will remain in place for the life of the permit project.

- Develop in consultation with and approved by the Forest Service technical specialists and their consultants a groundwater testing and monitoring program for the tunnel (unless a final impervious liner is installed prior to commissioning) which will detect seepage from the tunnel liner into the groundwater and riparian areas.

This monitoring program will remain in place for the life of the permit project.

**USFS-37 Condition No. 37 – Scenery Conservation Plan.** 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 actions that would minimize the project’s disturbance to the naturally established scenery. While implementation of this plan is not expected to achieve the Scenic Integrity Objectives of the Cleveland National Forest LMP in many areas, it would enable achievement of the highest scenic integrity possible.

The Forest’s “High” Scenic Integrity Objective is applicable to almost the entire project area. This objective is to maintain a natural appearing condition, and to design landscape alterations so they remain visually unnoticed from sensitive public viewpoints. These viewpoints include the South Main Divide Road, Ortega Highway, Grand Avenue, Lake Elsinore and nearby communities, other nearby communities including LaCresta, Wildomar, Rancho Capistrano, Interstate 15, Morgan Trail, San Mateo Canyon Wilderness, and Wildomar Road viewpoints including the OHV recreation area, and road segments near Los Alamos Canyon and Tenaja Trailhead.

In order to achieve the greatest consistency with the Forest’s High Scenic Integrity Objective, the project shall integrate the following design recommendations into the Scenery Conservation Plan:

- **Power Lines and Support Towers:** Transmission lines shall be non-specular (non-reflective) and neutral in coloration. To appear as visually transparent as possible within the natural landscape pattern, power lines, and support towers shall be custom-colored to harmonize with the natural vegetation and sky. Towers shall be designed to minimize their visual prominence and their contrast with the natural landscape patterns. They shall be surfaced with a flat, non-reflective finish. Towers beyond 0.75 miles shall visually recede into the natural appearing landscape. Support towers within the “foreground” (approximately 0.75 miles) of sensitive viewpoints shall typically be of monopole design offering a simple, clean and less industrial appearance. Support towers viewed beyond approximately 0.75 miles from sensitive viewpoints shall typically be of a more open, steel lattice design presenting less visual mass, allowing the natural scenery to be viewed through its more open structure. Selection of support tower design along the alignment shall consider both foreground and background sensitive views, as well as the tower’s nearby landscape appearance. Vegetation and ground clearing at the foot of each tower, and between towers, would be limited to the clearing necessary to comply with electrical safety requirements. Mitigation, such as placement of a dark colored vegetation barrier/matting, shall be incorporated to reduce the visual contrast of vegetation clearing.
- **Reservoir:** Conceal the unnatural views into the upper storage reservoir that may be visible from South Main Divide and Ortega Highway, nearby recreation areas, trails and wilderness. The reservoir shall be surrounded by an earth berm with irregular form and profile to reflect the local topography. This landform shall be planted with local species native to the area, to blend with the natural appearing landscape. Security fencing shall be colored to blend with, and be screened by, planted native vegetation.

- **Roads:** New temporary roads (maximum 15% ground slope) or roads needing reconstruction/expansion shall be configured to minimize the creation of cut/fill slopes, and 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.
- **Penstock:** Penstocks shall be located in underground tunnels and any associated ground disturbance shall be reshaped to natural appearing contours and revegetated with native species.
- **Structures:** All structures and structural elements constructed as part of the project shall be designed, located, shaped, textured, colored and/or screened as necessary to minimize their visual contrast. Structures must blend with and complement the adjacent natural landscape appearance.

The Licensee shall provide photorealistic visual simulations of the project features and scenery mitigation measures. These simulations shall demonstrate the effectiveness of the project in achieving LMP Scenic Integrity Objectives for the Elsinore Place as viewed from sensitive viewpoints. These simulations provide information necessary for the Forest Service to approve final project designs. Simulations shall support project refinement of location, design, color and other scenery considerations of the proposed power lines and poles, upper reservoir, and powerhouse. Simulations shall use high quality photography to effectively portray potential scenery effects of the proposed facilities across the project's full geographic range, as seen from most of the sensitive views listed above. Appropriate lighting and atmospheric clarity within the photographs are needed to accurately simulate the potential effects.

Where project features create unavoidable scenery effects that are inconsistent with CNF Scenic Integrity Objectives, additional scenery enhancement activities approved by the Forest Service shall be performed in the nearest suitable areas to offset those effects.

**USFS-38 Condition No. 38—Habitat Mitigation Plan.** Within 1 year from license issuance or prior to any ground disturbing activities, and before starting any activities the Forest Service determines to be of a land-disturbing nature on National Forest System land, the Licensee shall file with the Commission habitat mitigation plan approved by the Forest Service. This plan must identify requirements for construction and mitigation measures to meet Forest Service habitat objectives and standards. Where project features create unavoidable effects that are inconsistent with CNF Land and Resource Management Plan Habitat Objectives, additional activities shall be performed to offset the direct effects of project construction.

The replacement in kind of lost habitat would be most appropriately located within the project area, but if opportunities are not fully available there, then alternatively and in order of priority, to be located elsewhere within the Elsinore "Place" (as identified by the LRMP), the Trabuco Ranger District, or the Cleveland NF. Replacement habitat must be manageable by the Forest Service. The plan also must include dates for accomplishing these objectives and standards and must identify needs for and timing of any additional studies necessary. The plan must consist of the following minimum mitigation ratios for permanent loss of habitat:

- 3:1 for riparian oak woodland
- 2:1 for habitats that are sensitive or support listed species
- 2:1 for coastal sage scrub
- 2:1 for grassland
- 1:1 for chaparral