ATTACHMENT A

Mitigation Measures

All mitigation measures presented in the Final EIR/EIS are listed below.

Air Quality

A-1a **Implement Construction Fugitive Dust Control Plan.** SCE shall develop a Fugitive Dust Emission Control Plan (FDECP) for construction work. Measures to be incorporated into the plan include, but are not limited to the following:

- Water the disturbed areas of the active construction sites at least three times per day and more often if uncontrolled fugitive dust is noted.
- Enclose, cover, water twice daily, and/or apply non-toxic soil binders according to manufacturer's specifications to exposed piles with a five percent or greater silt content.
- CARB certified and ANF approved (on NFS lands) non-toxic soil binders shall be applied per manufacturer recommendations to active unpaved roadways, unpaved staging areas, and unpaved parking area(s) throughout construction (as allowed by responsible agencies such as the Forest Service) to reduce fugitive dust emissions. Other non-toxic soil binder products, selected from lists available from EPA's Environmental Technology Verification program or the SCAQMD, may be applied per manufacturer recommendations in place of the CARB certified soil binders if such products can be reasonably demonstrated to be as effective as the CARB certified non-toxic soil binders.
- Maintain unpaved road vehicle travel to the lowest practical speeds, and no greater than 15 mph, to reduce fugitive dust emissions.
- All vehicle tires shall be inspected, are to be free or dirt, and washed as necessary prior to entering paved roadways.
- Install wheel washers or wash the wheels of trucks and other heavy equipment where vehicles exit the site.
- Cover all trucks hauling soil and other loose material, or require at least two feet of freeboard.
- Establish a vegetative ground cover (in compliance with biological resources impact mitigation measures) or otherwise create stabilized surfaces on all unpaved areas at each of the construction sites within 21 days after active construction operations have ceased.
- Increase the frequency of watering, or implement other additional fugitive dust mitigation measures, to all active disturbed fugitive dust emission sources when wind speeds (as instantaneous wind gusts) exceed 25 miles per hour (mph).
- Travel routes to each construction site shall be developed to minimize unpaved road travel.

A-1b **Properly Maintain Mechanical Equipment.** The construction contractor shall ensure that all mechanical equipment associated with project construction is properly tuned and maintained in accordance with the manufacturer's specifications.

A-1c **Use Ultra Low-sulfur Diesel Fuel.** CARB-certified ultra low-sulfur diesel (ULSD) fuel containing 15 ppm sulfur or less shall be used in all diesel-powered construction equipment.

A-1d **Restrict Engine Idling to 10 Minutes.** Diesel engine idle time shall be restricted to no more than 10 minutes.

A-1e **Schedule Deliveries Outside of Peak Traffic Hours.** All material deliveries to the marshalling yards and from the marshalling yards to the construction sites shall be scheduled outside of peak

traffic hours (6:00 to 9:30 am and 3:30 to 6:30 pm) to the extent feasible, and other truck trips during peak traffic hours shall be minimized to the extent feasible.

A-1f **Offroad Diesel-fueled Equipment Standards.** All offroad construction diesel engines not registered under CARB's Statewide Portable Equipment Registration Program, which have a rating of 50 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, section 2423(b)(1) unless that such 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. In the event a Tier 1 engine is not available for any off-road engine larger than 100 hp, that engine shall be equipped with a catalyzed diesel particulate filter (soot filter), unless certified by engine manufacturers that the use of such devices is not practical for specific engine types. Equipment properly registered under and in compliance with CARB's Statewide Portable Equipment Registration Program are in compliance with this mitigation measure.

A-1g **On-road Vehicles Standards.** All on-road construction vehicles shall meet all applicable California on-road emission standards. This does not apply to construction worker personal vehicles.

A-1h **Offroad Gasoline-fueled Equipment Standards.** All offroad stationary and portable gasoline powered equipment shall have EPA Phase 1/Phase 2 compliant engines, where the specific engine requirement shall be based on the new engine standard in affect two years prior to initiating project construction.

A-1i **Reduction of Helicopter Emissions.** Helicopter use will be limited to the extent feasible and helicopters with low emitting engines shall be used to the extent practical.

Biological Resources

B-1a **Provide Restoration/Compensation for Impacts to Native Vegetation Communities** (chamise chaparral, coastal sage scrub, and riparian, if affected). SCE shall have a qualified restoration biologist prepare a Habitat Restoration and Revegetation Plan for the project. Plans for restoration, enhancement/re-vegetation and/or creation should be prepared by persons with expertise in southern California ecosystems and native plant re-vegetation techniques. The plan should include at minimum: (a) the location of the mitigation site; (b) the plant species to be used; (c) a schematic depicting the mitigation area; (d) time of year that the planting will occur; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) success criteria; (h) a detailed monitoring program; and, (i) contingency measures should the success criteria not be met. The plan shall be designed to meet the success criteria identified in the Forest Plan which requires restoration goals to be achieved within three years of implementation.

SCE shall utilize a CPUC/Forest Service approved seed mix to revegetate areas disturbed by construction activities. This mix should consist of native, locally-occurring species collected from local seed sources. Restoration shall include the revegetation of stripped or exposed work and/or mitigation areas with vegetation native to the area. No commercially purchased seeds will be accepted unless the collection source is the Del Sur Ridge and must be certified to be free of noxious weeds. Revegetation shall include ground cover, grass, shrub, and tree species in order to match disturbed areas to surrounding conditions and to restore or improve wildlife habitat quality to pre-project or higher levels. The plan also shall include a monitoring element spanning a minimum of five years post-planting. SCE shall restore temporarily disturbed areas, including existing 66-kV

tower locations that are to be removed by the Project, to pre-construction conditions following construction.

Permanent impacts outside of the NFS lands shall be mitigated at a ratio to be determined by the CPUC. Within ANF upland vegetation and ephemeral washes with permanent impacts will be mitigated at a ratio of 3:1. Temporary impacts will be replaced at a ratio of 1:1. If the temporary impacts are greater then 3 years then add 0.5 for each year over three years. Permanent impact to mulefat scrub, willow scrub, willow riparian woodland, cottonwood riparian woodland, alder woodland and sycamore woodland will be replaced at a ratio of 5:1. Temporary impacts to the scrub communities will replaced at a 1:1 ratio. Temporary impacts to woodland communities will be replaced at a 2:1 ratio. Where onsite restoration is planned for mitigation of temporary impacts to sensitive vegetation communities, SCE shall identify a Habitat Restoration Specialist to be approved by the CPUC/Forest Service to determine the most appropriate method of restoration.

The creation or restoration of habitat shall be monitored for five years after mitigation site construction to assess progress and identify potential problems with the restoration site. Remedial activities (e.g. additional planting, removal of non-native invasive species, or erosion control) shall be taken during the five-year period if necessary to ensure the success of the restoration effort. If the mitigation fails to meet the established performance criteria after the five-year maintenance and monitoring period, monitoring shall extend beyond the five-year period until the criteria are met or unless otherwise noted by the CPUC/Forest Service. If a catastrophic event occurs, such as a fire, there will be a one time replacement. If a second catastrophic event occurs, no replanting is required.

B-1b **No Activities will occur in Riparian Conservation Areas.** The final project design will include protective measures where no activities will occur on NFS lands in Riparian Conservation Areas in compliance with the Forest Plan. Examples of activities that will NOT be allowed include ground disturbance, adding potable water to these areas while implementing erosion control measures, and removing water from the waterways.

B-2 **Restoration of Coast Live Oak Trees.** Construction within the driplines of oak trees, and incidental trimming or damage to trees along the proposed route shall not occur until the trees are evaluated by a qualified arborist, who shall identify appropriate measures to minimize tree loss including the placement of fence around the dripline, padding the truck, and the placement of matting under the existing dripline during construction activities. If construction, trimming, or incidental trimming leads to damage or the removal of any coast live oak, California black walnut and western sycamore they shall be replaced in kind at a 10:1 ratio. Valley oaks shall be replaced in kind at a 15:1 ratio. Elderberry, cottonwood, and willows shall be replaced at a 5:1 ratio.

On the ANF any oak or native tree which must be removed or killed as a result of construction or other project-related activities shall be replaced in kind. The replacement ratios (using rooted plants in liners or direct planting of acorns) for plants which are to be removed shall be as follows: plants less than 5 inches DBH shall be replaced at 3:1; plants from 5 to 12 inches shall be replaced at 5:1; trees from 12 to 24 inches shall be replaced at 10:1; trees from 24 to 36 inches shall be replaced at 15:1; all oaks greater than 36 inches shall be replanted at a ratio of 20:1. The replacement ratio for damaged trees shall be 2:1 for plants with DBH less than 12 inches and a 5:1 ratio for plants with DBH greater than 12 inches. Trees shall be at least 5 years old and capable of surviving without further maintenance. Compliance shall be evaluated 5 years after tree removal. Trees shall be planted at locations acceptable to the landowner or managing agency. All planting locations, procedures, and results shall be evaluated by a qualified arborist.

On non-NFS lands all protection and replacement measures shall be consistent with applicable local jurisdiction requirements, such as the Los Angeles County Oak Tree Ordinance. Tree removal shall not be permitted until replacement trees have been planted or transplanting sites are approved.

B-4 **Implement Weed Control Measures.** SCE shall adhere to the USDA Forest Service management guidelines for reducing the potential for the introduction of invasive, non-native plant species in the ANF by implementation of the following standards:

- SCE SHALL WASH ALL EQUIPMENT AND VEHICLES: Vehicles and all equipment must be washed BEFORE AND AFTER entering all project sites. This includes wheels, undercarriages, bumpers and all parts of the vehicle. In addition, all tools such as chain saws, hand clippers, pruners, etc must also be washed BEFORE AND AFTER entering all project sites. For example, vehicles traveling into contaminated areas are the main dispersal mechanism for yellow star-thistle. All washing must take place where rinse water is collected and disposed of in either a sanitary sewer or a landfill.
- Erosion control measures utilized on the project shall be certified weed free.
- SCE SHALL KEEP WRITTEN LOGS: When vehicles and equipment are washed, a daily log must be kept stating:
    - Location
    - Date and time
    - Methods Used
    - Staff present
    - Equipment washed
    - Signature of responsible crew member
- These written logs will be turned in to the Forest project manager and Forest Botanist on a weekly basis.
- SCE will monitor areas that have been temporarily or permanently impacted by this project and will remove any noxious weeds that may invade into those locations.

B-6 **Conduct Pre-construction Surveys and Monitoring for Breeding Birds.** SCE shall conduct pre-construction surveys for nesting birds if construction and removal activities are scheduled to occur during the breeding season for raptors and other migratory birds. Surveys shall be conducted in areas within 500 feet of tower sites, laydown/staging areas, substation sites, and access road/spur road locations. SCE shall be responsible for designating a qualified biologist who can conduct pre-construction surveys and monitoring for breeding birds. If breeding birds with active nests are found, a biological monitor shall establish a 300-foot buffer around the nest and no activities will be allowed within the buffer until the young have fledged from the nest or the nest fails. The 300-foot buffer may be adjusted to reflect existing conditions including ambient noise and disturbance with the approval of the CPUC and USFS. The biological monitor shall conduct regular monitoring of the nest to determine success/failure and to ensure that project activities are not conducted within the buffer until the nesting cycle is complete or the nest fails. The biological monitor shall be responsible for documenting the results of the surveys and the ongoing monitoring and will provide a copy of the monitoring reports for impact areas on NFS lands to the Forest Biologist.

B-7 **Conduct Surveys for Listed Plant Species.** Conduct Surveys for Listed and Sensitive Plant Species. SCE shall conduct focused surveys prior to construction during the appropriate floristic period appropriate for each sensitive plant species in all suitable habitats located within the Project ROW and within 100 feet of all surface disturbing activities.

- Surveys for Braunton's milk-vetch and thread-leaved brodiaea shall be conducted in chaparral, coastal sage scrub, and grassland habitat between March and June.

- Surveys for San Fernando Valley spineflower shall be conducted in coastal sage scrub habitat between April and July.
- Surveys for Kusche's sandwort, Palmer's mariposa lily, alkali mariposa lily, San Gabriel bedstraw, rock monardella, short-joint beavertail, and Rock Creek broomrape shall be conducted in chaparral habitat in June (see Impact B-15).
- Surveys shall be conducted in chaparral and coastal sage scrub habitat between May and June for slender mariposa lily, Plummer's mariposa lily, San Gabriel Mountains dudleya, and between January and April for rayless ragwort (see Impact B-15).
- Surveys for many-stemmed dudleya shall be conducted in chaparral, coastal sage scrub, and grassland habitat between March and July (see Impact B-15).
- Surveys for Hall's monardella shall be conducted in chaparral and grassland habitat between June and August (see Impact B-15).
- Surveys for round-leaved filaree shall be conducted in grassland habitat between March and May (see Impact B-15).

Populations of sensitive plants shall be flagged and mapped prior to construction. If sensitive plants are located during the focused surveys, then modification of the placement of towers, access roads, laydown areas, and other ground disturbing activities would be implemented in order to avoid the plants. If sensitive plants cannot be avoided, SCE shall be responsible for the translocation of plants and/or collection of seeds from existing populations that would be impacted and the planting/seeding of these plants in adjacent suitable portions of the ROW that would not be affected by proposed Project construction or maintenance activities. These transplanted or seeded plants will be monitored for 5 years. In the City of Lancaster, impacts to alkali mariposa lilies may be mitigated through off-site compensation. Impacts to federally or State listed plant species would not be allowed except through the context of a biological opinion.

B-8a **Conduct Focused Surveys for Arroyo Toad.** SCE shall contract with a qualified local biologist to conduct focused surveys for arroyo toad in San Francisquito Creek. If detected in or adjacent to the proposed ROW no work will be authorized within 500 feet of occupied habitat until SCE provides concurrence from the United States Fish and Wildlife Service (USFWS) to the CPUC. If present SCE shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.

- SCE shall retain a qualified biologist with demonstrated expertise with arroyo toads to monitor all construction activities in arroyo toad potential habitat and assist SCE in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of arroyo toad.
- Prior to the onset of construction activities, SCE shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:
  a. A detailed description of the arroyo toad including color photographs;
  b. The protection the arroyo toad receives under the Endangered Species Act and possible legal action or that may be incurred for violation of the Act;
  c. The protective measures being implemented to conserve the arroyo toad and other species during construction activities associated with the proposed project; and
  d. A point of contact if arroyo toads are observed.

- All trash that may attract predators of the arroyo toad will be removed from work sites or completely secured at the end of each work day.
- Prior to the onset of any construction activities, SCE shall meet on-site with staff from the USFWS and the authorized biologist. SCE shall provide information on the general location of construction activities within habitat of the arroyo toad and the actions taken to reduce impacts to this species. Because arroyo toads may occur in various locations during different seasons of the year, SCE, USFWS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on arroyo toads. The goal of this effort is to reduce the level of mortality of arroyo toads during construction. The parties realize that complete elimination of all mortality is likely not possible because some arroyo toads may occur anywhere within suitable habitat during any given season; the detection of every individual over large areas is impossible because of the small size, fossorial habits, and cryptic coloration of the arroyo toad.
- Where construction can occur in habitat where arroyo toads are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG/CPUC. All workers will be advised that equipment and vehicles must remain within the fenced work areas.
- The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any arroyo toads from within the fenced area to suitable habitat outside of the fence. If arroyo toads are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with e USFWS/CDFG/CPUC.
- Fencing to exclude arroyo toads will be at least 24 inches in height.
- The type of fencing must be approved by the authorized biologist and the USFWS/CDFG/CPUC.
- Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of arroyo toads may congregate will be conducted during times of the year (fall/winter) when individuals have dispersed from these areas. The authorized biologist will assist SCE in scheduling its work activities accordingly.
- If arroyo toads are found within an area that has been fenced to exclude arroyo toads, activities will cease until the authorized biologist moves the arroyo toads.
- If arroyo toads are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the arroyo toads. The authorized biologist in consultation with USFWS/CDFG/CPUC will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist and USFWS.
- Any arroyo toads found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
- The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
- Staging areas for all construction activities will be located on previously disturbed upland areas designated for this purpose. All staging areas will be fenced within potential toad habitat.
- To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.

- Drift fence/pitfall trap surveys will be implemented in toad sensitive areas prior to construction in an effort to reduce potential mortality to this species. Prior to any construction activities in the project area, silt fence shall be installed completely around the proposed work area and a qualified biologist should conduct a preconstruction/ clearance survey of the work area for arroyo toads. Any toads found in the work area should be relocated to suitable habitat. The silt fence shall be maintained for the duration of the work activity.
- SCE shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when arroyo toads may be present on the access road. Traffic speed should be maintained at 15 mph or less in the work area.

B-8b **Implement Seasonal Restrictions for Road Maintenance, Culvert Replacement, and Grading of New Access and Spur Roads That Occur Within Drainages.** SCE shall conduct road maintenance activities and new construction activities that occur within drainages when no water flow is present. Seasonal restrictions will reduce the potential for increased sedimentation of potential arroyo toad breeding pools or other listed riparian dependent species that could occur downstream of the ROW. Vehicles and equipment shall not utilize the Bouquet Creek crossing (Forest Road 6N19) if flowing water covers any portion of the bridge.

B-9 **Conduct Focused Surveys for California Red-legged Frog.** SCE shall contract with a qualified biologist to conduct focused surveys for California Red-legged frog in all areas that may support this species. If detected in or adjacent to the proposed ROW no work will be authorized within 500 feet of occupied habitat until SCE provides concurrence from the USFWS to the CPUC. If present SCE shall develop and implement a monitoring plan that includes the following measures in consultation with the USFWS and CDFG.

- SCE shall retain a qualified biologist with demonstrated expertise with red-legged frogs to monitor all construction activities and assist SCE in the implementation of the monitoring program. This person will be approved by the USFWS prior to the onset of ground-disturbing activities. This biologist will be referred to as the authorized biologist hereafter. The authorized biologist will be present during all activities immediately adjacent to or within habitat that supports populations of red-legged frog.
- Prior to the onset of construction activities, SCE shall provide all personnel who will be present on work areas within or adjacent to the project area the following information:
  a. A detailed description of the red-legged frog including color photographs;
  b. The protection the red-legged frog receives under the Endangered Species Act and possible legal action or that may be incurred for violation of the Act;
  c. The protective measures being implemented to conserve the red-legged frogs and other species during construction activities associated with the proposed project; and
  d. A point of contact if red-legged frogs are observed.
- All trash that may attract predators of the red-legged frogs will be removed from work sites or completely secured at the end of each work day.
- Prior to the onset of any construction activities, SCE shall meet on-site with staff from the USFWS and the authorized biologist. SCE shall provide information on the general location of construction activities within habitat of the red-legged frogs and the actions taken to reduce impacts to this species. Because red-legged frogs may occur in various locations during different seasons of the year, SCE, USFWS, and authorized biologists will, at this preliminary meeting, determine the seasons when specific construction activities would have the least adverse effect on red-legged frogs. For example construction during the time of year when red-legged frogs are dormant October through January (although frogs may remain active year round) would reduce impacts to this species. The goal of this effort is to reduce the level of mortality of red-legged frogs during construction.

- Where construction can occur in habitat where red-legged frogs are widely distributed, work areas will be fenced in a manner that prevents equipment and vehicles from straying from the designated work area into adjacent habitat. The authorized biologist will assist in determining the boundaries of the area to be fenced in consultation with the USFWS/CDFG/CPUC. All workers will be advised that equipment and vehicles must remain within the fenced work areas.
- The authorized biologist will direct the installation of the fence and conduct a minimum of three nocturnal surveys to move any red-legged frogs from within the fenced area to suitable habitat outside of the fence. If red-legged frogs are observed on the final survey or during subsequent checks, the authorized biologist will conduct additional nocturnal surveys if he or she determines that they are necessary in concurrence with the USFWS/CDFG/CPUC.
- Fencing to exclude red-legged frogs will be at least 24 inches in height.
- The type of fencing must be approved by the authorized biologist and the USFWS/CDFG/CPUC.
- Construction activities that may occur immediately adjacent to breeding pools or other areas where large numbers of red-legged frogs may congregate will be conducted during times of the year (winter) when individuals have dispersed from these areas or the species is dormant. The authorized biologist will assist SCE in scheduling its work activities accordingly.
- If red-legged frogs are found within an area that has been fenced to exclude red-legged frogs, activities will cease until the authorized biologist moves the red-legged frogs.
- If red-legged frogs are found in a construction area where fencing was deemed unnecessary, work will cease until the authorized biologist moves the red-legged frogs. The authorized biologist in consultation with USFWS/CDFG/CPUC will then determine whether additional surveys or fencing are needed. Work may resume while this determination is being made, if deemed appropriate by the authorized biologist.
- Any red-legged frogs found during clearance surveys or otherwise removed from work areas will be placed in nearby suitable, undisturbed habitat. The authorized biologist will determine the best location for their release, based on the condition of the vegetation, soil, and other habitat features and the proximity to human activities. Clearance surveys shall occur on a daily basis in the work area.
- The authorized biologist will have the authority to stop all activities until appropriate corrective measures have been completed.
- Staging areas for all construction activities will be located on previously disturbed upland areas designated for this purpose. All staging areas will be fenced.
- To ensure that diseases are not conveyed between work sites by the authorized biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.
- SCE shall restrict work to daylight hours, except during an emergency, in order to avoid nighttime activities when red-legged frogs may be present on the access road. Traffic speed should be maintained at 20 mph or less in the work area.

B-12 **Conduct Protocol Surveys for California Gnatcatchers.** SCE shall conduct protocol level surveys for coastal California Gnatcatchers in all areas supporting suitable coastal sage scrub habitat that may be affected by the project. This will include a minimum 300-foot buffer. Presence/absence of this species shall be determined prior to construction activities. If present, SCE shall avoid construction in or adjacent to occupied habitat during the breeding season (March 15-July 31). If direct impacts to coastal California gnatcatcher occupied habitat cannot be avoided, project activities shall not occur in occupied habitat until impacts to this species have been addressed through either the Section 7 or Section 10(a)(1)(B) Process under the Federal Endangered Species Act of 1973, as amended. SCE shall complete compliance with the Federal

Endangered Species Act prior to Project construction. Mitigation measures developed through this process shall include restriction of construction activities within coastal sage scrub habitat during the gnatcatcher breeding season (March 15-July 31), restoration/creation/enhancement of on-site coastal sage scrub habitat, and/or the purchasing of land or mitigation bank credits at an appropriate ratio to offset impacts to gnatcatchers and their habitat.

B-13 **Raptor safety protection will be required on tower/conductor (lines) of NFS lands.** Install high-visibility or avoidance devices and appropriate raptor guards on poles and other structures potentially used as perching sites by California Condors. Guidance on raptor protection can be found in Suggested Practices for Raptor Protection on Power Lines (Electric Institute/Raptor Research Foundation) and 2005 Avian Protection Plan Guidelines (Electric Institute/USFWS).

B-14 **Utilize Collision-reducing Techniques.** Collision-reducing techniques, as outlined in "Mitigating Bird Collisions with Power Lines: The State of the Art in 1994," shall be implemented with the Project.

- Placement of towers and lines shall not be located significantly above existing transmission line towers and lines, topographic features, or tree lines to the maximum extent practicable.
- Overhead lines (i.e., conductors and ground wires) that occur significantly above the above-mentioned features and that are located in highly utilized avian flight paths (i.e. Bouquet Canyon Reservoir, Leona Valley, San Francisquito Canyon), will be marked utilizing aerial marker spheres, swinging plates, spiral vibration dampers, bird flight diverters, avifauna spirals, or other diversion device approved by the Forest Biologist (on NFS lands) as to be visible to birds and reduce avian collisions with lines.
- Where overhead transmission lines occur in California Condor habitat work with utility companies or authorization holders to install high-visibility or avoidance devices and raptor guards on poles and other structures potentially used as perching sites by California Condors.

B-16 **Conduct Pre-construction Surveys for Sensitive Amphibians and Reptiles.** SCE shall contract with a qualified local biologist to conduct pre-construction surveys for sensitive amphibians and reptiles. Habitat occupied by toads shall be flagged and avoided during construction. Adult toads shall be moved to suitable habitat if construction activities will impact the pool or depression. Sensitive reptiles shall be moved a minimum of 500 feet off the ROW to suitable habitat.

B-19 **Passively Relocate Individual Burrowing Owls During the Non-Breeding Season.** SCE shall conduct pre-construction surveys for the western burrowing owl. Surveys will be conducted prior to ground disturbance activities in areas that contain habitat for this species. Burrows located outside the project area shall be flagged for avoidance. Un-occupied burrows located in the right of way shall be covered to prevent owls from re-occupying the burrows prior to construction. If active owl burrows are discovered within 300 feet of a tower the owls would be relocated from the burrows using either active or passive techniques as recommended by the CDFG. Owl relocation, as well as discouragement of owls from returning to the site, will occur in the following manner:

- During the non-breeding season (September 1 through January 31), burrowing owls occupying the proposed plant site will be evicted by passive relocation. Passive relocation would include the installation of one-way doors on burrow entrance. Any active burrow would be replaced off-site in adjacent habitat with an artificial burrow. Burrows shall be inspected with a fiber optic camera to ensure animals do not remain in the den.
- If construction would occur during the breeding season (February 1 through August 31) and prior to the relocation of the owls a 300-foot protective buffer would be maintained around burrows occupied by owls until the young have fledged. Other actions could include passive relocation if it is determined that

owls have not begun laying eggs or postponement of construction in the area until the young are fledged and no longer dependent upon the nest burrow.

- Once fledglings are capable of independent survival and adult non-breeding owls have successfully been relocated offsite, potential owl habitat (squirrel burrows) would be collapsed in order to keep the owls from returning.

B-25 **Passively Relocate American Badgers During the Non-breeding Season.** SCE shall survey and identify any badger dens located within the project area and shall be flagged for avoidance. Un-occupied dens located in the ROW shall be covered to prevent the animal from re-occupying the den prior to construction. Occupied dens in the ROW shall be hand-excavated if avoidance is not possible. Dens shall only be hand–excavated before or after the breeding season (February-May). Any relocation of badgers shall take place after consultation with the Forest Service and CDFG.

B-26 **Avoid Burrow Areas.** SCE's Biological Monitor shall flag areas with high concentrations of small rodent burrows and these areas will be avoided to the extent feasible.

Cultural Resources

C-2 **Evaluate the NRHP Eligibility of P19-186857 and Perform Historical Documentation if Eligible.** Prior to construction, the NRHP eligibility of the PS 74 transmission line shall be evaluated by carrying out historical research and determining whether the transmission line facilities retain integrity of workmanship, design, and materials. If the Forest Service and the SHPO determine the transmission line is eligible (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography of an example tower that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

C-7a **Avoid CA-LAN-3478.** CA-LAN-3478 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the PA between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-7b **Evaluate the NRHP Eligibility of CA-LAN-3478 and Perform Historical Documentation and/or Archaeological Data Recovery if Eligible.** Prior to construction, the NRHP eligibility of CA-LAN-3478 shall be evaluated by carrying out historical research and an archaeological test program to determine whether subsurface archaeological material is present that has the potential to yield information important in prehistory. If the Forest Service and the SHPO determine the site is eligible under Criterion D (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and

cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and. Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). If the site is determined eligible under Criteria A or B (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and Forest Service will ensure that the documentation is completed and filed.

C-8a **Avoid CA-LAN-1334/H.** CA-LAN-1334/H and the Cochem Ranch buildings shall be avoided by all Project construction activities by moving the location for proposed new tower T-104 off-site and removing existing tower 23-2 without disturbing the ground, in accord with the avoidance and protection measures in the PA between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-8b **Evaluate the NRHP eligibility of CA-LAN-1334 and Cochem Ranch and Perform Historical Documentation and/or Archaeological Data Recovery if Eligible.** Prior to initiating any construction activities in the vicinity of CA-LAN-1334/H, an archaeological test program will be completed in order to provide information necessary to evaluate the prehistoric component of CA-LAN-1334/H for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible under Criterion D (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted by removal of existing tower 23-2 and for the portion of the site that will be impacted for installation of proposed new tower T-104, if this proposed tower location cannot be moved off the archaeological site. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The complex of buildings and structures known as the Cochem Ranch will be evaluated for NRHP eligibility by an architectural historian prior to construction. If the Forest Service and SHPO determine that the Cochem Ranch is eligible under Criteria A, B, or C (and therefore also a CEQA Historical Resource), the adverse effect will be mitigated by formulating and implementing a mitigation plan. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography that meets standards set by the SHPO with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and Forest Service will ensure that the documentation is completed and filed.

C-10a Avoid CA-LAN-3479. CA-LAN-3479 shall be avoided by all Project construction activities by moving the location of proposed new tower T-107 away from the site, one of the measures for avoidance in the PA between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-10b Evaluate the NRHP Eligibility of CA-LAN-3479 and Perform Archaeological Data Recovery if Eligible. If site CA-LAN-3479 cannot be avoided, prior to initiating any construction activities in the vicinity of CA-LAN-3479, an archaeological test program will be completed in order to provide information necessary to evaluate the CA-LAN-3479 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

C-12 Evaluate the NRHP Eligibility of CA-LAN-3477 and Perform Historical Documentation if Eligible. Prior to construction, the NRHP eligibility of CA-LAN-3477 shall be evaluated by carrying out historical research. If the Forest Service and the SHPO determine that CA-LAN-3477 is eligible (and therefore also a CEQA Historical Resource), effects will be assessed and a mitigation plan will be formulated and implemented if effects will be adverse. The mitigation plan will require historical documentation to standards set by the SHPO. The documentation will preserve information on all of the characteristics that made the resource eligible. Documentation will be achieved through historical research and high resolution photography with the results provided in a report to be filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). The CPUC and U.S. Forest Service will ensure that the documentation is completed and filed.

C-13a Avoid P19-120077. P19-120077 shall be avoided by all Project construction activities. Avoidance and protection may be achieved by implementing measures for avoidance, such as moving tower locations or using non-destructive construction methods, contained in the PA between the USDA Forest Service and the California State Historic Preservation Officer. The site will be fenced off as an environmentally sensitive area during construction.

Or

C-13b Evaluate the NRHP Eligibility of P19-120077 and Perform Archaeological Data Recovery if Eligible. If site P19-120077 cannot be avoided, prior to initiating any construction activities in the vicinity of P19-120077, an archaeological test program will be completed in order to provide information necessary to evaluate P19-120077 for eligibility for the NRHP. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will

ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP).

C-14 **Conduct Construction Monitoring in Sensitive Areas in the Project Area, Evaluate the Eligibility of Previously Undiscovered Resources, and Perform Archaeological Data Recovery if Eligible.** All Project-related ground-disturbing activities in sensitive areas, defined as on ridge tops and in canyon bottoms and within 500 feet of identified resources, shall be monitored by an archaeologist. If an archaeological site is discovered during monitoring, all work within 500 feet of the find shall be halted and the Forest Service District Ranger or Forest Supervisor shall be notified. The Forest Service will evaluate the NRHP eligibility of the find if it cannot be avoided. If the Forest Service and SHPO determine that the site is eligible (and therefore also a CEQA Historical Resource), an archaeological data recovery program, consisting of hand excavated units, identification and cataloging of recovered material, and a report, will be completed for the portion of the site that will be impacted as a result of Project construction activities. The CPUC and Forest Service will ensure that the data recovery report is completed and filed with the California Historic Resources Information System (CHRIS), the California Public Utilities Commission (CPUC), the Forest Service, and the California Office of Historic Preservation (OHP). Construction work that was halted within 500 feet of the find cannot proceed until authorized by the District Ranger or Forest Supervisor.

Geology, Soils, and Paleontology

G-1 **Protect Against Slope Instability.** Design-level geotechnical investigations performed by the Applicant shall be performed by a licensed geologist or engineer and shall include evaluation of slope stability issues in areas of planned grading and excavation, and provide recommendations for development of grading and excavation plans. Based on the results of the geotechnical investigations, appropriate support and protection measures shall be designed and implemented to maintain the stability of slopes adjacent to newly graded or regraded access roads and work areas during and after construction. These measures shall include, but are not limited to, retaining walls, visqueen, removal of unstable materials, and avoidance of highly unstable areas. SCE shall document compliance with this measure prior to the start of construction by submitting a report to the CPUC and Forest Service (for areas on NFS land) for review and approval. The report shall document the investigations and detail the specific support and protection measures that will be implemented.

G-2 **Minimization of Soil Erosion.** The Construction SWPPP for the Project shall include BMPs designed to minimize soil erosion along access roads and at work areas. Appropriate BMPs may include construction of water bars, grading road surfaces to direct flow away from natural slopes, use of soil stabilizers, and consistent maintenance of roads and culverts to maintain appropriate flow paths. Silt fences and straw bales installed during construction shall be removed to restore natural drainage during the cleanup and restoration phase of the project. Where access roads cross streams or drainages, they shall be built at or close to right angles to the streambeds and washes and culverts or rock crossings shall be used to cross streambeds and washes. Design of appropriate BMPs should be conducted by or under the direction of a qualified geologist or engineer.

G-4 **Minimize Project Structures Within Active Fault Zone.** Perform a geologic/geotechnical study to confirm location of mapped traces of active and potentially faults (the San Gabriel and San

Andreas Faults) crossed by the alignment. Tower locations shall be adjusted as necessary to avoid placing tower footings on or across mapped fault traces. Towers on either side of a fault shall be designed to provide a significant amount of slack to allow for potential fault movement and ground surface displacement.

G-5 **Geotechnical Investigations for Liquefaction and Slope Instability.** Since seismically induced ground failure has the potential to damage or destroy Project components, the Applicant shall perform design-level geotechnical investigations specifically to assess the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved Project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures shall be incorporated into the Project designs. Such measures 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.

G-6 **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. The Applicant shall follow the Institute of Electrical and Electronics Engineers (IEEE) 693 "Recommended Practices for Seismic Design of Substations" which has specific requirements to mitigate the types of damage that equipment at substations have had in the past from such seismic activity. These design guidelines shall be implemented during construction of substation modifications. Substation control buildings shall be designed in accordance with the Uniform Building Code for sites in Seismic Zone 4 with near-field factors.

G-7 **Geotechnical Studies for Corrosive Soils.** In areas underlain by potentially corrosive soils or in areas of unknown corrosion potential (primarily in the ANF), the design-level geotechnical studies 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.

G-8 **Geotechnical Studies for Problematic Soils.** The Applicant shall perform design-level geotechnical studies to identify areas with potentially problematic soils and develop appropriate design features, including excavation of potentially problematic soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils.

G-9 **Geotechnical Surveys for Landslides.** The design-level geotechnical investigation performed by the Applicant shall include detailed surveys to evaluate the potential for unstable slopes, landslides, earth flows, and debris flows along the approved transmission line route and in the vicinity of other Project facilities. Based on these surveys, approved Project facilities shall be located away from known landslides, very steep hillsides, debris-flow source areas, the mouths of steep sidehill drainages, and the mouths of canyons that drain steep terrain. Where these landslide hazard areas cannot be avoided, appropriate engineering design and construction measures shall be incorporated into the Project designs to minimize potential for damage to Project facilities.

G-10 Protection of Paleontological Resources. The certified paleontological monitor retained by SCE to supervise monitoring of construction activities shall be responsible for the following:

- Monitoring shall be conducted where excavation is being conducted in geologic units of moderate to high sensitivity. Monitoring need not be conducted where excavation is being conducted in geologic units with zero sensitivity, such as the Pelona Schist and granitic and volcanic formations.
- If fossils are present in the construction area, then grading shall be temporarily diverted away from exposed fossils in order to recover the fossil specimens.
- If microfossils are present in the construction area, the monitor shall collect matrix for processing. In order to expedite removal of fossiliferous matrix, the monitor may request heavy machinery to assist in moving large quantities of matrix out of the path of construction to designated stockpile areas.
- Stockpiles shall be tested by screen washing small samples to determine if significant fossils are present. Productive tests shall result in screen washing of additional matrix from the stockpiles to a maximum of 6,000 pounds per locality to ensure recovery of a scientifically significant sample.
- Young Quaternary Alluvium, Colluvium, and Quaternary Landslide Deposits, which have a low paleontological sensitivity level, shall be spot-checked on a periodic basis to insure that older underlying sediments are not being penetrated.
- Recovered fossils shall be prepared to the point of curation, identified by qualified experts, listed in a database to allow analysis, and deposited in a designated repository.
- At each fossil locality, field data forms shall record the locality, stratigraphic columns shall be measured, and appropriate scientific samples submitted for analysis.
- A monthly progress report shall be prepared by the supervising paleontological monitor and filed with the client. A final mitigation report shall be filed with the client, the lead agency, and the repository.
- If fossils are found on NFS lands, a special use permit will be required to allow for any recovery actions to occur.

Public Health and Safety

PH-1a Environmental Training and Monitoring Program. An environmental training program will be established to communicate environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and proper Best Management Practice (BMP) implementation, to all construction and maintenance personnel. The training program will emphasize site-specific physical conditions to improve hazard prevention (e.g., identification of potentially hazardous substances) and will include a review of all site-specific plans, including but not limited to, the Project's SWPPP, Erosion Control and Sediment Transport Plan, Waste Characterization and Management Plan, and Hazardous Substances Control and Emergency Response Plan. Properly trained construction and maintenance staff are expected to prevent accidental hazardous materials spills and in the event of a spill will be able to quickly ascertain the best way to stop and mitigate the spill, thus limiting potential soil contamination.

A monitoring program will also be implemented to ensure that the plans are followed throughout the period of construction. Best Management Practices, as identified in the Project SWPPP and Erosion Control and Sediment Transport Plan, will also be implemented during the construction of the Project to minimize the risk of an accidental release and provide the necessary information for emergency response.

PH-1b Hazardous Substance Control and Emergency Response Plan. SCE will prepare a Hazardous Substance Control and Emergency Response Plan, which will include preparations for quick and safe cleanup of accidental spills. This plan will be submitted with the grading permit applications to the appropriate oversight agency based on grading location. It will prescribe hazardous-materials handling procedures for reducing the potential for a spill during construction, and will include an emergency response program to ensure quick and safe cleanup of accidental spills. 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. SCE shall document compliance with this measure prior to the start of construction by submitting the plan to the CPUC and Forest Service for review.

PH-1c Proper Disposal of Construction Waste. All construction and demolition waste, determined to be potentially hazardous, including trash and litter, garbage, other solid waste, petroleum products and other potentially hazardous materials, will be removed to a hazardous waste facility permitted or otherwise authorized to treat, store, or dispose of such materials. Waste materials shall be removed from the project staging areas in a manner consistent with California Integrated Waste Management Board standards for transportation and disposal of hazardous materials, based on Title 27, Environmental Protection Division 2, Solid Waste.

PH-1d Emergency Spill Supplies and Equipment. Hazardous material spill kits will be maintained on-site for 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 Hazardous Substances Control and Emergency Response Plan.

PH-2 Conduct Phase II Investigation. A Phase II investigation shall be conducted for any sites revealed to be potentially contaminated by the Phase I ESAs prior to commencement of construction activities. The Phase II investigation shall include a review of current status from agency files of known contaminated sites, including identification of the concentration and limits of contamination, type of release, and media affected; and collection of samples for laboratory analysis and quantification of contaminant levels within the proposed excavation and surface disturbance areas in areas of known and potential contamination. The scope of the field investigation shall be developed in accordance with the standard of practice for assessment of appropriate worker protection and material handling and disposal procedures. Soil sampling and laboratory testing shall be conducted at locations along the Project route where known contaminated sites are within 0.25 miles of the tower locations and substations or are determined to pose a threat to the Project based on the results of agency file review. The Phase II shall be conducted and recommendations completed prior to the start of construction.

Subsurface investigation shall determine appropriate worker protection and hazardous material handling and disposal procedures appropriate for the subject area. Areas with contaminated soil and/or groundwater determined to be hazardous waste shall be removed by personnel who have been trained through the OSHA recommended 40-hour safety program (29CFR1910.120) with an approved plan for groundwater extractions, soil excavation, control of contaminant releases to the air, and off-site transport or on-site treatment. Results of the agency file review and Phase II investigations shall be reviewed and approved by the County of Los Angeles Fire Department, Health Hazardous Materials Division and/or DTSC prior to construction. A copy of the DTSC or Health Hazardous Materials Division approval letter must be provided to the CPUC prior to start of construction.

PH-3 Observe Exposed Soil. During grading, or excavation work for the Project, the contractor shall observe the exposed soil for visual evidence of contamination. If visual contamination indicators are observed during construction, the contractor shall stop work until the material is properly characterized and appropriate measures are taken to protect human health and the environment. The contractor shall comply with all local, State, and federal requirements for sampling and testing, and subsequent removal, transport, and disposal of hazardous materials. In the event that evidence of contamination is observed, the contractor shall document the exact location of the contamination and shall immediately notify the CPUC's Environmental Monitor and propose actions for addressing the contamination. A weekly report listing encounters with contaminated soils and describing actions taken shall be submitted to the CPUC.

PH-4a Documentation of Compliance. SCE shall document compliance with updating and preparing the SPCC Plan for this project by (a) submitting to the CPUC for review and approval an outline of the proposed Environmental Training and Monitoring Program, (b) providing a list of names of all operations personnel who have completed the training program, and (c) providing a copy of the SPCC plans to the CPUC for review and approval at least 60 days before the start of operation.

PH-4b Emergency Spill Supplies and Equipment. Hazardous material spill kits will be maintained in maintenance vehicles for small spills. This shall include oil-absorbent material, and spill kits to be used to contain and control any minor releases. During significant maintenance operations, 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 Hazardous Substances Control and Emergency Response Plan.

PH-5a Limit the Conductor Surface Electric Gradient. As part of the design and construction process for the Project, the Applicant shall limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.

PH-5b Document and Resolve Electronic Interference Complaints. After energizing the transmission line, SCE 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 SCE to the CPUC for resolution.

PH-6 Determine Proper Grounding Measures. As part of the siting and construction process for the Project, SCE shall identify objects (such as fences, metal buildings, and pipelines) that have the potential for induced voltages and work with the affected parties to determine proper grounding procedures (CPUC G095 and the NESC do not have specific requirements for grounding). SCE shall install all necessary grounding measures prior to energizing the line. Thirty days prior to energizing the line, SCE shall notify in writing, subject to the review and approval of the CPUC, all property owners within and adjacent to the Project ROW of the date the line is to be energized. The written notice shall provide a contact person and telephone number for answering questions regarding the line and guidelines on what activities should be limited or restricted within the ROW. SCE shall respond to and document all 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 deferred by SCE to the CPUC for resolution.

The written notice shall describe the nature and operation of the line, and the Applicant's responsibilities with respect to grounding all conducting objects. In addition, the notice shall describe the property owner's responsibilities with respect to notification for any new objects, which may require grounding and guidelines for maintaining the safety of the ROW.

Forest Management Activities

F-1 **Develop a Fire Plan with the Forest Service.** In consultation with the Forest Service Authorizing Officer (or delegated Forest officer) prior to construction, SCE shall develop a Fire Plan. This plan shall be attached to and become a part of the Special Use Authorization. The Fire Plan shall include fire prevention and suppression measures approved by the Forest Service. These measures shall be reviewed annually by the Forest Service and updated as appropriate.

F-2 **Develop an Operation and Maintenance Plan with the Forest Service.** In consultation with the Forest Service Authorizing Officer (or delegated Forest officer) prior to construction, SCE shall develop an Operation and Maintenance (O&M) Plan. This plan shall be attached to and become a part of the Special Use Authorization. The O&M Plan shall include, at a minimum, road maintenance specifications, vegetation treatment and rehabilitation specifications, and conditions on maintenance and replacement of improvements. These measures shall be reviewed annually by the Forest Service and updated as appropriate.

F-3 **Helicopters Shall Cease Activities in the Event of Fire.** SCE shall contact ANF dispatch seven days prior to helicopter use and shall provide ANF with radio frequencies being used by the aircraft, aircraft identifiers, the number of helicopters that will be used while working on NFS lands at any given time, and the flight pattern of helicopters used on NFS lands. Should a wildfire occur in the area, upon contact from the Forest Aviation Officer, helicopters in use by SCE shall immediately cease construction activities and not restart aerial operations until the Forest Aviation Officer provides clearance.

F-6 **De-energize the Transmission Line.** SCE shall provide ANF dispatch with a contact person (and 24-hour phone number) that has the authority to shut down the power and reroute it onto another transmission line. Prior to fire prevention or firefighting activities or during firefighting activities, when ANF feels continued power transmission on the proposed line will impact fire prevention activities, firefighter safety, or the ability to fight the fire aggressively, the ANF will contact SCE and SCE shall make every effort to immediately de-energize the transmission line. This shall be acknowledged through a Memorandum of Understanding between the ANF and SCE.

F-8a **SCE Shall Enter into an Agreement with the ANF to Widen the Del Sur Ridge Fuelbreak.** This agreement shall acknowledge that SCE will aid in the cost of construction and maintenance for widening the portions of Del Sur Ridge fuelbreak in locations where the proposed transmission line could adversely impact ground firefighter forces safety. These shared costs and/or maintenance shall be for the life of the Special Use Authorization.

F-8b **Provide Transmission Line Safety Training to ANF Staff.** SCE shall provide appropriate transmission line safety training to ANF staff prior to fire season on an annual basis.

Hydrology and Water Quality

H-1a Implementation of Erosion and Sediment Best Management Practices. The following Best Management Practices (BMPs) shall be implemented in order to minimize potential hydrologic and water quality impacts of erosion and sedimentation created through project construction:

- Mechanical and vegetative measures shall be implemented to provide surface soil stability where necessary, as described in Section 12.22 (Road and Building Site Construction Best Management Practices) of the USDA's guidance document entitled "Water Quality Management for Forest System Lands in California" (USDA, 2005). Mechanical measures may include but are not limited to: wattles, erosion nets, terraces, side drains, blankets, mats, riprapping, much, tackifiers, pavement, soil seals, and windrowing construction slash at the toe of fill slopes. Vegetative measures shall be used to supplement mechanical measures, as appropriate.
- Road slope stabilization practices shall be implemented prior to the first winter rains. These practices shall include: verification of the correct slope steepness as dependent upon the dominant soil type/s present, implementation of methods to handle surface and subsurface runoff, and finalization of road surface compaction or application of appropriate surfacing material.
- Any temporary roadways which are built or used for the purpose of transporting construction equipment and materials to construction sites shall be situated to prevent undercutting of the designated final cut slope, avoid deposition of materials outside the designated roadway limits, and accommodate drainage with temporary culverts as necessary. Proposed road designs on NFS lands shall be submitted to the USDA Forest Service for prior approval and shall be incorporated into the Special Use Authorizations to be issued by the USDA Forest Service.
- Embankment methods shall be implemented to ensure adequate strength of the roadway and shoulder and to minimize potential failure of road embankments and fill areas. Acceptable stabilization methods include: sidecasting and end dumping, layer placement (roller compaction), controlled compaction, minimization of fill volumes, or strengthening of fills using retaining walls, confinement systems, plantings, or a combination of techniques. The appropriate stabilization effort shall be determined by the supervising project or crew leader prior to the onset of construction, based on site-specific conditions. Proposed stabilization efforts on NFS lands shall be submitted to the USDA Forest Service for prior approval and shall be incorporated into the Special Use Authorizations to be issued by the USDA Forest Service.
- Strictly control vehicular traffic to only that which is necessary.
- Restore temporary construction areas (e.g., temporary roads, pulling and splicing stations) to a near natural condition and ensure that the sites are re-vegetated and stabilized, unless operation and maintenance of the project would require the areas to remain clear. Restoration plans on NFS lands shall be submitted to the USDA Forest Service for prior approval, and shall be incorporated into the Special Use Authorizations to be issued by the USDA Forest Service.
- Establish the use of concrete washout stations to capture and contain concrete washout material and wastewater to avoid direct release of washout to surface water. Any concrete waste shall be disposed of properly on non-NFS lands.
- Erosion control measures shall be completed prior to the first anticipated rains at all construction sites. An Erosion Control Plan shall be prepared as part of the Project SWPPP, and shall be submitted to the USDA Forest Service for prior approval and incorporated into the Special Use Authorizations to be issued by the USDA Forest Service.

H-1b Maximum Road Gradient. The maximum allowable road gradient applicable to all new roadways, including access roads and spur roads, which would be installed to provide temporary or permanent access during construction and/or operation and maintenance activities shall be no

greater than ten percent, except where SCE can demonstrate that a steeper grade, such as twelve percent, results in fewer impacts.

H-1c **Road Surface Treatment.** Road surface treatments shall be implemented on non-NFS lands in order to minimize the erosion of road surface materials and reduce the likelihood of related sediment production. Treatments may include watering, dust oiling, penetration oiling, sealing, aggregate surfacing, chip sealing, or paving. The technique utilized at each site shall depend upon traffic, soils, geology, and road design specifications. The Forest Service shall approve all road surface treatments implemented on NFS lands. Watering of roads shall be required on NFS lands. Site-specific road surface treatments shall be specified by the supervising project or crew leader prior to the onset of construction activities.

H-1d **Timing of Construction Activities.** Construction activities, particularly regarding roadway installations and improvements, must occur during the dry season or when precipitation events are not expected.

H-1e **Dispersion of Subsurface Drainage from Slope Construction Areas.** In order to minimize sediment production from the potential failure of slope construction areas, subsurface drainage devices shall be implemented where necessary, as determined during final siting and engineering of transmission towers. Where it is determined necessary due to site-specific conditions such as slope severity, soil condition, precipitation levels, and inherent instability, subsurface drainage will be utilized to avoid moisture saturation and potential subsequent slope failure. Subsurface dispersion methods would include underdrains or subdrains such as pipes, horizontal drains, or chimney drains. Proposed subsurface drainage devices on NFS lands shall be submitted to the USDA Forest Service for prior approval, and shall be incorporated into the Special Use Authorizations to be issued by the USDA Forest Service.

H-1f **Control of Side-cast Material, Right-of-Way Debris and Roadway Debris.** Side-cast material includes any loose, unconsolidated materials that must be re-located to facilitate construction activities. This may include rocks and boulders as well as other organic materials. Prior to the onset of any construction activities, waste areas must be designated where excess material can be deposited and stabilized. During road construction and maintenance, potential sidecast and other waste material will be utilized on the road surface. Any unused material shall be removed to designated disposal sites. Waste areas shall not be left exposed and must be transported to disposal facilities on a regular basis, which will be determined based on site-specific conditions. Temporary waste areas shall be located on NFS lands as needed, but shall be subject to prior approval by the USDA Forest Service Officer. At a minimum, temporary waste areas shall be removed before the first anticipated rains. Disposal areas shall not be located on NFS lands.

H-4 **Develop and Implement a Groundwater Remediation Plan.** Prior to the onset of any construction activities, the Applicant shall determine the specific location and extent of any groundwater resources that may be encountered through project-related excavation activities such as the installation of underground infrastructure. The Applicant shall develop and implement a groundwater remediation plan if it is determined that known groundwater resources would be unavoidable during construction. In the event that unknown groundwater resources are encountered or an unplanned disturbance of known resources occurs, the Applicant shall immediately halt the disruptive excavation activity and develop and implement a site-specific remediation plan. This remediation plan may require activities such as bioremediation or other applicable technology, as determined appropriate under site-specific conditions.

H-5 **Permeability of Ground Cover.** Untreated crushed rock or a comparable material will be used to maintain permeability to the subsurface and allow for infiltration in all areas where it is necessary to provide a cap over the natural or existing ground cover, including over trenches, graded access roads , underground transition stations, and substation additions or expansions, and excluding areas where it is necessary to use an impermeable material such as concrete.

H-7 **Aboveground Structures shall be Protected Against Flood and Erosion Damage.** Aboveground project features such as transmission line towers and substation facilities shall be designed and engineered to withstand any mechanical stresses that may result from location, such as potential flooding or erosion of the surrounding area. Site-specific measures may include tower anchoring, installation of slope protection, or raising foundation levels. All Project-related facilities shall be placed outside the current and reasonably expected future flow path of watercourses. No Project-related facilities shall be positioned within a known watercourse.

Land Use and Public Recreation

L-5 Establish Agreement and Coordinate Construction Activities with Agricultural Landowners. Sixty (60) days prior to the start of Project construction, SCE shall secure a signed agreement with property owners of Farmland (Prime Farmland, Farmland of Statewide Importance, Unique Farmland) that will be used for construction and operation of the Project, access and spur roads, staging areas, and other project-related activities. The purpose of this agreement will be to set forth the use of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland during construction in order to: (1) schedule proposed construction activities at a location and time when damage to agricultural operations would be minimized, and (2) ensure that any areas damaged or disturbed by construction are restored to a condition mutually agreed upon by the landowner and SCE.

SCE shall coordinate with the agricultural landowners in the affected areas where Farmland will be temporarily disturbed in order to determine when and where construction should occur in order to minimize damage to agricultural operations. This includes avoiding construction during peak planting, growing, and harvest seasons. If damage or destruction does occur, SCE shall perform restoration activities on the disturbed area in order to return the area to a pre-determined condition or the pre-construction condition, whichever option is agreed upon by the landowner and SCE. This could include activities such as soil preparation, regrading, and reseeding. This measure applies to agricultural landowners with land that is impacted by the Project. SCE shall provide proof of the continued use of Farmland through the submittal of a signed agreement between an individual property owner and SCE. Thirty (30) days prior to the start of construction, copies of the signed agreements shall be submitted to the CPUC for review and approval prior to the start of construction.

L-6 Locate Transmission Towers and Pulling/Splicing Stations to Avoid Agricultural Operations. SCE shall site transmission towers and pulling/splicing stations in locations that minimize impacts to active agricultural operations. Specifically, SCE shall comply with the following measures when siting transmission towers and splicing/pulling stations within areas where active cultivated farmland would be removed through the presence of structures:

- SCE shall avoid orchards, row crops, and furrow-irrigated crops where towers would interfere with irrigation and harvest activities.
- SCE shall avoid irrigation canals and ditches.

- SCE shall align towers adjacent to field boundaries and parallel to rows (if located in row crops), and shall avoid diagonal orientations and angular alignments within agricultural land.

SCE shall document and provide proof of compliance with the above listed items 90 days prior to the start of proposed Project construction. This documentation shall be submitted to the CPUC for review and approval prior to the start of construction, and reviewed with affected landowners during coordination activities described in Mitigation Measure L-5 (Establish Agreement and Coordinate Construction Activities with Agricultural Landowners).

R-1a **Coordinate Construction Schedule with the Authorized Officer for the Recreation Area.** No less than 40 days prior to construction, SCE shall coordinate construction activities and the Project construction schedule with the authorized officer of the recreation areas listed below. SCE shall schedule construction activities to avoid heavy recreational use periods, including major holidays, in coordination with, and at the discretion of the authorized officer. SCE shall prepare a public notice of construction activities consistent with Mitigation Measure N-1b (Provide Advanced Notification of Construction), which shall be distributed to ranger stations within the ANF as well as published in local newspapers. SCE shall document its coordination efforts with the authorized officer, and provide this documentation to the CPUC and the USDA Forest Service 30 days prior to construction.

- Angeles National Forest
- Pacific Crest National Scenic Trail
- Mountainview Park
- Ritter Ranch
- California Poppy Trail
- Northside Trail
- Cliffie Stone Trail
- Bouquet Canyon Trail
- Leona Valley Loop Trail
- Vasquez Loop Trail
- Acton Community Trail
- Mint Canyon Trail

R-1b **Identify Alternative Recreation Areas.** No less than 40 days prior to construction, SCE shall coordinate with the authorized officer for the recreation areas listed below in order to identify alternative recreation sites (i.e., trails, parks) that may be used by the public during construction. SCE shall post a public notice at ranger stations within the ANF and at other recreation facilities that would be closed or limited during construction, which shall provide information on alternative recreation facilities. SCE shall document its coordination with the authorized officer, and submit this documentation to the CPUC and the USDA Forest Service 30 days prior to construction.

- Angeles National Forest
- Pacific Crest National Scenic Trail
- Mountainview Park
- Ritter Ranch
- California Poppy Trail
- Northside Trail
- Cliffie Stone Trail
- Bouquet Canyon Trail
- Leona Valley Loop Trail
- Vasquez Loop Trail
- Acton Community Trail
- Mint Canyon Trail

R-1c **Temporary Closure of Off-Highway Vehicle Routes.** During Construction. SCE shall coordinate with the Forest Service and shall post a public notice consistent with Mitigation Measure N-1b (Provide Advanced Notification of Construction). The notice shall be posted in local newspapers, ranger stations within the ANF, and at adjacent recreation facilities, and shall include a list of the specific off-highway vehicle (OHV) routes to be closed during construction. SCE shall maintain these postings throughout the temporary OHV route closure period. SCE shall document its coordination with the authorized officer, and submit this documentation to the CPUC and the USDA Forest Service 30 days prior to construction.

R-1d **Temporary Upgrades to Forest System Roads.** SCE shall submit its plans of proposed road maintenance work to the Forest Service Engineer for review and approval, which shall be incorporated into a temporary Special Use or Road Use Authorization to be issued by the USDA Forest Service. The proposed maintenance work shall include a road restoration plan and restoration schedule to ensure that the Forest System roads are restored at the designated Maintenance Level (i.e., Level 2) following Project construction, in order to allow for their continued use by OHV recreationalists.

R-3 **Avoid Upgrades to Forest System Road Maintenance Levels.** SCE shall implement the requirements for road improvements and maintenance as mandated by the conditions in the Special Use or Road Use Authorization to be issued by the USDA Forest Service for the proposed Project. For all designated Maintenance Level 2 Forest System roads, SCE shall adhere to the Management Prescription Guidelines for Level 2 as delineated in the Forest Service Handbook (FSH 7709.58), which includes maintaining the road prism to provide for the passage of high clearance vehicles. Plans for any proposed road maintenance work during Project operation shall be submitted to the Forest Engineer for review and approval prior to maintenance activities.

R-4 **Permanent Closure and Re-vegetation of Construction Roads.** Access roads built and re-opened for construction of the Project, which are not part of the Forest System roads, shall be blocked from vehicle access and rehabilitated to a near natural condition. The USDA Forest Service shall consider authorizing to SCE the use of access roads that are demonstrated not to introduce unmanaged recreation, erosion, invasive plan species, or impacts to scenic values. SCE shall prepare a Restoration and Revegetation Plan for Project access and spur roads, consistent with Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities). The Restoration and Revegetation Plan shall include resource protection measures that reestablish former drainage patterns, stabilize slopes, block illegal road access, install water bars, remove culverts, remove unstable fill, pull back road shoulders, and eliminate the roadbed by restoring natural contour and slope. The Restoration and Revegetation Plan shall be submitted to the CPUC and the USDA Forest Service for prior approval, and shall be incorporated into the Special Use Authorization to be issued by the USDA Forest Service.

Noise

N-1a **Nighttime Construction Noise Restriction in Santa Clarita.** During construction, SCE or its construction contractor will not perform construction activities within 300 feet of a City of Santa Clarita residentially zoned property between the nighttime hours of 7:00 p.m. to 7:00 a.m. Monday through Friday and 6:00 p.m. to 8:00 a.m. on Saturday, without the approval of a variance from the City of Santa Clarita.

N-1b **Provide Advanced Notification of Construction.** During construction, SCE or its construction contractor shall provide advance notice, between two and four weeks prior to construction, by mail to all single-family residences and businesses that would be within 600 feet of project construction, multi-family residences within 300 feet of construction, and commercial uses within 170 feet of construction. If any significant changes in scheduling were to occur, SCE would publish an updated notice in the local papers or send an updated Fact Sheet. The announcement shall state specifically where and when construction would occur in the area. If construction delays of more than seven days occur, an additional notice shall be made, either in person or by mail. Notices shall provide tips on reducing noise intrusion, for example, by closing windows facing the planned construction. SCE shall also publish a notice of impending construction in

local newspapers, stating when and where construction would occur. Prior to construction, copies of all notices will be submitted to the CPUC and Forest Service for review and approval.

N-1c **Provide Shields for Stationary Construction Equipment.** During construction, SCE or its construction contractor will install temporary shields or curtains to reduce stationary equipment noise levels in unincorporated areas of Los Angeles County when operating within 600 feet of single-family residences, within 350 feet of multi-family residences, and within approximately 200 feet of commercial uses to reduce noise levels from stationary construction equipment to within the Los Angeles County maximum allowable construction noise levels. The maximum allowable noise levels for single-family residences are 60 dBA between 7:00 a.m. and 8:00 p.m. and 50 dBA between 8:00 p.m. and 7:00 a.m., for multi-family residences are 65 dBA between 7:00 a.m. and 8:00 p.m. and 55 dBA between 8:00 p.m. and 7:00 a.m., and for semi-residential/commercial uses are 70 dBA between 7:00 a.m. and 8:00 p.m. and 60 dBA between 8:00 pm and 7:00 a.m.

N-7 **Coordination of Construction Activities with the Veluzat Motion Picture Ranch.** SCE or its construction contractor will coordinate all construction activities that will occur within one half mile of the Veluzat Motion Picture Ranch with the operators of the ranch, at least two months prior to construction. SCE or its construction contractor will make a good faith effort to schedule all construction activities within one half mile of the ranch in order to cause the least amount of disturbance as possible to the operations of the ranch.

Public Services

P-1 **Expansion of the Southern California Edison Fire Prevention and Response Plan (FPRP).** SCE's FPRP shall apply to the entire length of the Antelope-Pardee 500-kV Transmission Line ROW, including the portions of the route in unincorporated Los Angeles County, and the Cities of Lancaster and Santa Clarita. SCE shall modify its plan to include the entire Project route, and shall notify the construction contractor(s) that the SCE FPRP and all measures contained within shall be applicable to the entire Project route and be in effect during the entire Project construction phase. SCE shall provide the revisions to the plan to CPUC for review and approval prior to the start of construction.

Traffic and Transportation

T-1a **Prepare Traffic Control Plans.** Prior to the start of construction, SCE shall submit Traffic Control Plans (TCPs) to all agencies with jurisdiction over public roads that will be affected by overhead construction activities as part of the required traffic encroachment permits. TCPs shall define the locations of all roads that will need to be temporarily closed due to construction activities, including aerial hauling by helicopter and conductor stringing activities. The TCPs shall define the use of flag persons, warning signs, lights, barricades, cones, etc. to provide safe work areas and to warn, control, protect, and expedite vehicular and pedestrian traffic. The measures included in the TCP shall be consistent with the standard guidelines outlined in the Caltrans Traffic Manual, the Standard Specifications for Public Works Construction, and the Work Area Traffic Control Handbook (WATCH). Copies of the TCPs shall be sent to the responsible agencies for review, including Los Angeles County and the cities of Lancaster and Santa Clarita and Los Angeles County.

TCPs shall also include measures to avoid disruptions or delays in access for emergency service vehicles and to keep emergency service agencies fully informed of road closures, detours, and delays. Police departments, fire departments, ambulance services, and paramedic services shall be notified at least one month in advance by SCE of the proposed locations, nature, timing, and duration of any construction activities and advised of any access restrictions that could impact their effectiveness. Provisions shall be ready at all times to accommodate emergency vehicles, such as immediately stopping work for emergency vehicle passage, short detours, and alternate routes developed in conjunction with local agencies. TCPs shall also identify all emergency service agencies, include contact information for those agencies, assign responsibility for notifying the service providers, and specify coordination procedures. Copies of the TCPs shall be provided to all affected police departments, fire departments, ambulance and paramedic services. Documentation of coordination with service providers shall be provided to the CPUC prior to the start of construction.

T-1b **Restrict Lane Closures.** To mitigate traffic congestion and delays during construction, SCE shall restrict all necessary lane closures or obstructions on major roadways, as designated by applicable County or City General Plans, associated with overhead construction activities to off-peak periods only. Lane closures must not occur between the peak hours of 6:00 and 9:30 a.m. and between the peak hours of 3:30 and 6:30 p.m., or as directed in writing by the affected public agency in the encroachment permit.

T-2 **Prepare Construction Transportation Plan.** To reduce the number of Project-related vehicles traveling on roads within the Project area, site construction workers shall be staged off site at marshalling yards or near paved intersections and workers will be shuttled to construction sites in groups in crew vehicles.

T-4 **Avoid Disruption of Bus Service.** SCE will coordinate with Santa Clarita Transit at least one month prior to construction to reduce potential interruption of bus transit services. SCE will also consult with the Saugus Union School District at least one month prior to construction to ensure construction activities are scheduled such that they will not disrupt school bus routes.

T-5 **Provide Temporary Pedestrian and Bicycle Access.** Where construction will result in temporary closures of sidewalks and other pedestrian facilities, SCE will provide temporary pedestrian access through detours or safe areas along the construction zone. Any affected pedestrian facilities and the alternative facilities or detours that will be provided will be identified in the Traffic Control Plan required pursuant to Mitigation Measure T-1a. Where construction activity results in bike lane closures, appropriate detours and signs will be provided.

T-6 **Coordinate with Caltrans and the City of Santa Clarita to Avoid Conflicts with the Santa Clarita Cross-Valley Connector.** SCE shall coordinate project design with Caltrans and the City of Santa Clarita to ensure that structures associated with the transmission line are not placed in locations that could block further widening or development of the Santa Clarita Cross-Valley Connector.

T-7 **Repair Damaged Road ROWs.** If damage to roads, sidewalks, and/or medians (including irrigation systems for landscaped medians) occurs, SCE will be responsible for ensuring repairs are implemented within two months of completion of construction activities at the affected location. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces.

Utilities and Service Systems

U-2 **Recycle Construction Waste.** To comply with the Integrated Waste Management Act of 1989, during Project construction SCE 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, SCE shall provide the CPUC and Forest Service with documentation from the recycling and landfill facilities used to show that the amount of waste recycled was 50 percent or more.

Visual Resources

V-1a **Use Tubular Steel Poles.** In locations designated by the CPUC and Forest Service, to reduce significant visual impacts as seen from sensitive receptor locations, SCE and its Contractors shall eliminate lattice steel towers from the Project, and substitute tubular steel poles in the locations where indicated to reduce visual impacts and where deemed technically feasible and where reliability will not be compromised. SCE and its Contractors shall provide documentation demonstrating where tubular steel poles will lessen visual impacts, and conversely, where lattice steel towers will blend in with a landform backdrop. To the extent that SCE and its contractors deem the use of tubular steel poles to be infeasible or to adversely impact reliability in a location where they will lessen visual impacts, SCE and its contractors shall provide documentation of such infeasibility or adverse impact on reliability. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit these plans and studies to the CPUC, and as appropriate to the Forest Service, for review and approval at least 120 90 days prior to the start of construction.

V-1b **Construct, Operate, and Maintain with Existing Access/Spur Roads.** In locations designated by the CPUC and Forest Service, the Applicant (SCE) shall remove existing transmission line towers and conductors using existing access roads and spur roads, and shall construct the new transmission line using existing access roads and spur roads. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit plans and construction drawings for access roads and spur roads, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.

V-1c **Dispose of Cleared Vegetation.** For areas where cleared vegetation will be visible from sensitive viewing locations, SCE and its Contractors shall dispose of cleared vegetation and woody material in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit a vegetation removal plan, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.

V-1d **Dispose of Excavated Materials.** For areas where excavated materials will be visible from sensitive viewing locations, SCE and its Contractors shall dispose of excavated materials (soil, rocks, and concrete, and reinforcing steel) in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit an Excavation Plan, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 60 days prior to the start of construction.

V-1e **Treat Surfaces with Appropriate Colors, Finishes, and Textures.** For all structures that are visible from sensitive viewing locations, the Applicant (SCE) shall apply surface coatings with appropriate colors, finishes, and textures to most effectively blend the structures with the visible backdrop landscape. For structures that are visible from more than one sensitive viewing location, if backdrops are substantially different when viewed from different vantage points, the darker color shall be selected, because dark colors tend to blend into landscape backdrops more effectively than lighter colors, which may contrast and produce glare. At locations where a lattice steel tower or tubular steel pole will be silhouetted against the skyline, non-reflective, light-gray colors shall be selected to blend with the sky. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE and its Contractors shall submit a Structure Surface Treatment Plan for the lattice steel towers, tubular steel poles, and any other visible structures, demonstrating compliance with this measure, to the CPUC and, as appropriate, to the Forest Service for review and approval at least 90 days prior to the start of construction.

V-3a **Remove Existing Foundations, Rehabilitate, and Re-Vegetate Tower Sites.** Existing foundations shall be completely removed from NFS lands and shall be disposed of properly. All ground disturbances from the removal of the 66-kV line from NFS lands shall be restored to a near natural condition. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall include these areas in the Restoration and Revegetation Plan from Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities) and include appropriate erosion control and revegetation measures.

V-3b **Remove, Rehabilitate, and Re-Vegetate Crane Pads.** All crane pads ("benching") on NFS lands shall be rehabilitated to a near natural condition after the construction is complete. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall include these areas in the Restoration and Revegetation Plan from Mitigation Measure B-1a (Provide Restoration/Compensation for Impacts to Native Vegetation Communities) and include appropriate erosion control and revegetation measures.

V-3c **Avoid Locating New Roads in Bedrock.** New access and spur road locations shall be designed to avoid bedrock cuts. All road cuts shall be located in soil material. Road construction designs shall be submitted to the CPUC for review and approval, and roads involving NFS lands shall be submitted to the Forest Engineer for review and approval, at least 120 days prior to the start of construction.

V-4a **Construct, Operate, and Maintain with Helicopters.** In the locations designated by the CPUC and Forest Service, SCE and its contractors shall remove existing 66-kV towers and conductors with helicopters, and shall construct the Project using helicopters to place the 500-kV structures and conductors. To minimize the visual impacts of road construction, SCE and its contractors shall access structures by walking or helicopter only, for construction, operation, and maintenance, in designated locations. SCE shall consult with the visual specialist designated by the CPUC or Forest Service, as appropriate, to ensure that the objectives of this measure are achieved. SCE shall submit plans and construction drawings for helicopter staging areas, access roads and spur roads to helicopter staging areas, and helicopter-pads and helispots, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

V-4b **Dispose of Cleared Vegetation Off Site.** For areas where cleared vegetation will be visible from sensitive viewing locations, SCE and its Contractors shall dispose of cleared vegetation and woody material off-site and in a manner that is not visually evident and does not create visual contrasts. SCE and its Contractors shall submit a vegetation removal and disposal plan, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

V-4c **Dispose of Excavated Materials Off Site.** For areas where excavated materials will be visible from sensitive viewing locations, SCE and its Contractors shall dispose of excavated materials (soil, rocks, concrete, and reinforcing steel) off-site in disposal areas off NFS-lands and at locations that do not create visual contrasts. These sites shall be pre-approved by the CPUC and Forest Service and any other applicable State, county, or city agencies. SCE and its Contractors shall submit an Excavation Plan, demonstrating compliance with this measure, to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

V-15a **Storage and Site Cleanup (Miles 0.0 to 25.6).** The Applicant (SCE) shall keep construction-related activity clean and inconspicuous by storing building materials and equipment within the proposed construction staging areas or generally away from public view and shall remove construction debris promptly at regular intervals.

V-15b **Recontouring and Restoration (Miles 0 to 25.6).** The Applicant (SCE) shall prepare and present to the CPUC, Forest Service (related to NFS lands), and other affected agencies a re-contouring and restoration plan at least 60 days prior to start of construction. The Applicant (SCE) shall re-contour and restore all disturbed or graded areas at the transmission line tower structures, pulling sites, staging areas, and substation expansion areas to provide a natural-appearing landform upon completion of construction.

V-15c **Revegetation (Miles 0 to 25.6).** The Applicant (SCE) shall prepare and present to the CPUC, Forest Service (related to NFS lands), and other affected agencies a revegetation plan at least 60 days prior to start of construction. The Applicant (SCE) shall re-vegetate all disturbed areas using approved methods commonly used in Los Angeles County, the Cities of Palmdale, Lancaster, and Santa Clarita, and the Angeles National Forest to restore the landscape's natural appearance to as near-natural appearance as possible.

V-16a **Forest Plan Amendment (Miles 5.7 to 18.6).** SCE shall obtain all necessary and applicable approvals and permits from the USDA Forest Service, including any required Forest Plan amendments, and shall submit said approvals and permits to the CPUC at least 60 days prior to construction.

V-16b **Local Agency Approvals (Miles 0.0 to 25.6).** SCE shall obtain all necessary and applicable approvals and permits from Los Angeles County and affected local agencies, and shall submit said approval(s) and permits to the CPUC at least 60 days prior to construction.

V-17a **Use Only Non-Specular and Non-Reflective Conductors and Insulators.** The Applicant (SCE) shall use only non-specular and non-reflective conductors, and the insulators shall be non-reflective and non-refractive. The Applicant (SCE) shall submit samples of these materials to the CPUC and Forest Service for review and approval at least 120 days prior to the start of construction.

ATTACHMENT A

Applicant Proposed Measures

In the following tables, "APM" refers to Applicant Proposed Measure.

Applicant Proposed Measures – Air Quality

Measure Number and Description
APM AQ-1: Use low sulfur fuel. (See Mitigation Measure A-1c).
APM AQ-2: Use of clean burning on-road and off-road diesel engines. Where feasible, heavy-duty diesel powered construction equipment manufactured after 1996 (with federally-mandated "clean" diesel engines) would be utilized. (See Mitigation Measure A-1f).
APM AQ-3: Construction workers will carpool when possible.
APM AQ-4: Vehicle idling time would be minimized. (See Mitigation Measure A-1d).
APM AQ-5: Water all active construction areas, access roads, and staging areas as needed. (See Mitigation Measure A-1a).
APM AQ-6: Cover all trucks hauling soils and other loose material, or require at least 2 feet of freeboard. (See Mitigation Measure A-1a).
APM AQ-7: Construction vehicles would use paved roads to access the construction site when possible. (See Mitigation Measure A-1a).
APM AQ-8: Limit vehicle speeds to 15 mph on unpaved roads. (See Mitigation Measure A-1a).
APM AQ-9: Sweep paved streets daily with water sweepers if visible soil material is carried onto adjacent public streets.
APM AQ-10: Stabilize soils in inactive construction areas on an as-needed basis. (See Mitigation Measure A-1a).
APM AQ-11: Enclose, cover, water twice daily, or add soil binders to exposed stockpiles of soil and other excavated materials. (See Mitigation Measure A-1a).
APM AQ-12: Allow natural revegetation to occur on temporarily disturbed areas following the completion of construction. (See Mitigation Measure A-1a).

ATTACHMENT A

Applicant Proposed Measures – Biology

Measure Number and Description

APM BIO-1: SCE would perform pre-construction clearance surveys to help ensure that no special-status plants or wildlife species are negatively impacted by construction. (See Mitigation Measures B-6, B-7, B-8a, B-9, B-12, B-16, B-19, B-24, B-25, and B-26)
APM BIO-2: Every effort would be made to minimize vegetation removal and permanent loss at construction sites. If necessary, native vegetation would be flagged for protection. (See Mitigation Measure B-1a)
APM BIO-3: Construction crews would avoid impacting the streambeds and banks of any streams along the route to the extent feasible. If necessary, SCE would secure a Streambed Alteration Agreement (SAA) from California Department of Fish and Game. Impacts would be mitigated based on the terms of the SAA. No streams with flowing waters and capable of supporting special-status species are expected to be impacted by the project. (See Mitigation Measure B-1b, B-8b)
APM BIO-4: Crews would be directed to use Best Management Practices (BMPs) where applicable. These measures would be identified prior to construction and incorporated into the construction operations to the fullest extent possible.
APM BIO-5: SCE would assign Biological Monitors to the Project. They would be responsible for ensuring that impacts to special-status species, native vegetation, wildlife habitat, or unique resources would be minimized to the fullest extent possible. Where appropriate, monitors would flag the boundaries of areas where activities need to be restricted in order to protect native plants and wildlife, or special-status species. These restricted areas would be monitored to ensure their protection during construction.
APM BIO-6: SCE would implement a worker environmental awareness training program to ensure that construction personnel are aware of the environmental conditions that must be adhered. All field construction personnel would be required to sign a statement that they agree to comply with all environmental protection measures associated with the project. (See PH-1a and PH-4a)
APM BIO-7: If it is determined that unanticipated significant and unavoidable impacts occurred to any special-status resources, SCE would purchase lands or otherwise enhance habitat to compensate. (See Mitigation Measures B-1a and B-1b)

Applicant Proposed Measures – Cultural Resources

Measure Number and Description

APM CULTURAL-1: It is recommended first that a full-scale archaeological reconnaissance be undertaken, and second that archaeological monitoring during construction take place in order to reduce any potential impacts to cultural and historical resources. In some cases, mitigation measures might be necessary in order to reduce potentially significant impacts on such resources. These mitigation measures may include but not be limited to standard test pits, testing for depth and extent of the archaeological deposit, or data recovery.

Applicant Proposed Measures – Geology, Soils and Paleontology

Measure Number and Description

APM GEO-1: For new substation construction (e.g., expansion of Antelope Substation), specific requirements for seismic design will be followed based on the Institute of Electrical and Electronic Engineers' 693 "Recommended Practices for Seismic Design of Substation". (See Mitigation Measure G-6)
APM GEO-2: Prior to final design of substation facilities and transmission line tower foundations, a geotechnical study would be performed to identify site-specific geologic conditions in enough detail to support good engineering practice. (See Mitigation Measures G-1, G-4, G-5, G-6, G-7, G-8, and G-9)
APM GEO-3: Transmission line and substation construction activities would be performed in accordance with the soil erosion/water quality protection measures specified in the Construction SWPPP. (See Mitigation Measures G-2 and H-1a)
APM PAL-1: The following mitigation measures have been developed to reduce the potential impacts of project construction on paleontological resources to a less than significant level. The measures are derived from the guidelines of the SVP and meet the requirements of Kern and Los Angeles counties and CEQA. These mitigation measures have been used throughout California and have been demonstrated to be successful in protecting paleontological resources while allowing timely completion of construction (See Mitigation Measure G-10): • A certified paleontologist would be retained by SCE to supervise monitoring of construction excavations and to produce a mitigation plan for the proposed Project. Paleontological monitoring would include inspection of exposed rock units and microscopic examination of matrix to determine if fossils are present. The monitor would have authority to temporarily divert grading away from exposed fossils in order to recover the fossil specimens. • If microfossils are present, the monitor would collect matrix for processing. In order to expedite removal of fossiliferous matrix, the monitor may request heavy machinery to assist in moving large quantities of matrix out of the path of construction to designated stockpile areas. Testing of stockpiles would consist of screen washing small samples to determine if significant fossils are present. Productive tests would result in screen washing of additional matrix from the stockpiles to a maximum of 6,000 pounds per locality to ensure recovery of a scientifically significant sample. • Quaternary Alluvium, Colluvium, and Quaternary Landslide Deposits have a low paleontological sensitivity level, and would be spot-checked on a periodic basis to insure that older underlying sediments are not being penetrated. • A certified paleontologist would prepare monthly progress reports to be filed with the client. • Recovered fossils would be prepared to the point of curation, identified by qualified experts, listed in a database to allow analysis, and deposited in a designated repository. • At each fossil locality, field data forms would record the locality, stratigraphic columns would be measured, and appropriate scientific samples submitted for analysis. • The certified paleontologist would prepare a final mitigation report to be filed with the client, the lead agency, and the repository.

Applicant Proposed Measures – Public Health and Safety

Measure Number and Description

APM PHS-1: SCE would perform Phase I Environmental Site Assessments (ESAs) to assess all project-related areas of planned ground disturbance prior to the initiation of construction and avoid any identified hazards accordingly.

Applicant Proposed Measures – Hydrology and Water Quality

Measure Number and Description

APM HYD-1: Transmission towers would not be placed within the waterway protection corridors defined by city and county codes.
APM HYD-2: In accordance with the Clean Water Act, a Storm Water Pollution Prevention Plan (SWPPP) would be prepared and implemented, including Best Management Practices (BMPs), in order to minimize construction impacts on surface and groundwater quality. The SWPPP would be prepared once the proposed Project is approved and after the necessary facilities are sited and designed.
APM HYD-3: An erosion control and sediment transport control plan (part of SWPPP) would be submitted to Los Angeles County along with grading permit applications. Implementation of the plan would help stabilize graded areas and waterways, and reduce erosion and sedimentation. The plan would designate BMPs that would be adhered to during construction activities. Erosion-minimizing efforts such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (for example, flagging), vehicle mats in wet areas, and retention/settlement ponds would be installed before extensive clearing and grading begins. Standard erosion and dust control practices would be used during construction according to BMPs to protect biological and hydrological resources.
APM HYD-4: An environmental training program would be established to communicate environmental concerns and appropriate work practices, including spill prevention and response measures, to all field personnel. A monitoring program would be implemented to ensure that the plans are followed throughout the period of construction. (See Mitigation Measure PH-1a)
APM HYD-5: The Construction SWPPP would include preparations for quick and safe cleanup of accidental spills. This plan would be submitted with the grading permit application. It would prescribe hazardous materials handling procedures for reducing the potential for a spill during construction, and would include an emergency response program to ensure quick and safe cleanup of accidental spills. The plan would identify areas where refueling and vehicle maintenance activities and storage of hazardous materials, if any, would be permitted. (See Mitigation Measure PH-1b)
APM HYD-6: Oil-absorbent materials, tarps, and storage drums would be used to contain and control any minor releases of transformer oil. In the event that excess water and liquid concrete escapes from pole foundations during pouring, it would be directed to bermed areas adjacent to the borings where the water would infiltrate or evaporate and the concrete would remain and begin to set. Once the excess concrete had been allowed to set up (but before it is dry), it would be removed and transported to an approved landfill for disposal.
APM HYD-7: If hazardous materials are encountered in excavated soils, work would be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, they would be handled, transported, and disposed of in accordance with federal, State, and local regulations. (See Mitigation Measure PH-3)

Applicant Proposed Measures – Noise

Measure Number and Description

APM NOI-1: Consistent with Section 8.24 of the City of Lancaster Municipal Code, within 500 feet of any occupied dwelling no construction will occur on Sundays, and no construction will occur between the hours of 8:00 p.m. and sunrise on all other days of the week. In the event that construction needed to occur outside the specified hours, a variance would need to be obtained.
APM NOI-2: Consistent with County Code (Section 12.08.440), no construction activities will occur in a residential area between 7:00 p.m. and 7:00 a.m. on weekdays and Saturdays, or at any time on Sundays and holidays. In the event that construction needed to occur outside the specified hours, a variance would need to be obtained.

ATTACHMENT A

Applicant Proposed Measures – Traffic and Transportation

Measure Number and Description

APM TRA-1: Construction activities would be designed to minimize work on or use of local streets.
APM TRA-2: When local streets must be used for more than normal traffic purposes, an encroachment permit or similar authorization would be obtained from the County (or other agency, as applicable).
APM TRA-3: Any construction or installation work requiring the crossing of a local street, highway, or rail line would incorporate the use of guard poles, netting, or similar means to protect moving traffic and structures from the activity.
APM TRA-4: Any work requiring an encroachment permit would include preparation of a traffic control plan (TCP) and other management plans to minimize effects on local streets. (See Mitigation Measure T-1a)
APM TRA-5: Any damage to local streets would be repaired, and the street system would be restored. (See Mitigation Measure T-7)
APM TRA-6: To the extent practical, existing access roads would be used during construction, and any re-grading of access trails would be the minimum necessary to provide safe access, and erosion control. (See Mitigation Measure V-1b)
APM TRA-7: Helicopter transport would be used for remote locations where roadway access is not feasible. Specific sites and the details of helicopter use would be determined in consultation with the USDA Forest Service. (See Mitigation Measures V-3d and V-4a)
APM TRA-8: Any damage to existing forest roads would be repaired. (See Mitigation Measure T-7)
APM TRA-9: The design and use of any new roadways and access trails within the ANF would be coordinated with the District and Forest Supervisor's office. The ANF may specify conditions under which use of the ANF roads and lands may be permitted. These conditions may include restoring or blocking access at some service trails, and repairing any roadway damage or erosion damage caused by construction activities or traffic.

Applicant Proposed Measures – Visual Resources

Measure Number and Description

APM VIS-1: Debris removal. During project construction, the work site would be kept clean of debris and construction waste. Material and construction storage areas would be selected to minimize views from public roads, trails and nearby residences. (See Mitigation Measures V-1c, V-1d, V-4b, V-4c, and V-15a)
APM VIS-2: Spacing of towers next to the Pacific Crest Trail. Where the proposed 500-kV transmission line route crosses the Pacific Crest National Scenic Trail north of Spunky Canyon Road, the transmission towers would be placed with a minimum setback of 300 feet from the trail.

(END OF ATTACHMENT A)