

PUBLIC UTILITIES COMMISSION

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February 21, 2012

Susan J. Nelson, AIA
Regulatory Affairs
Southern California Edison
2244 Walnut Grove Avenue, Quad 3D, GO1
Rosemead, CA 91770

RE: SCE Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line), Segment 3B Notice to Proceed (NTP #30)

Dear Ms. Nelson,

Southern Californian Edison (SCE) has requested authorization from the California Public Utilities Commission (CPUC) for construction of the Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line), Segment 3B, Structures 3B-1 through 3B-14.

The SCE Antelope 500 kV Transmission Project (Project) was evaluated in accordance with the California Environmental Quality Act and a Certification of Public Convenience and Necessity (CPCN) was granted by CPUC Docket #A.04-12-008, SCH #2006041160 on March 15, 2007. **NTP #30 is granted by CPUC for the proposed activities based on the following factors:**

- SCE submitted the following information:

SCE requests a Notice to Proceed (NTP) for construction of the Antelope Transmission Project (Antelope-Tehachapi 500kV and 220kV Transmission Line), Segment 3B, Structures 1 - 14. The Antelope Transmission Line Project (ATP), Segments 2 and 3 consist of two components: Segment 2, also known as the Antelope-Vincent 500kV Transmission Line, and Segment 3, also known as the Antelope-Tehachapi 500kV and 220kV Transmission Line. Segment 3 is comprised of a southern segment (3A) and a northern segment (3B). Segment 3B (hereafter referred to as the "Project") involves the construction of a new 9.6 mile 220kV transmission line connecting SCE's new Windhub Substation to their new proposed Highwind Substation south of Tehachapi Boulevard in the Tehachapi area of unincorporated Kern County.

The work on Segment 2 has been addressed in a separate NTP request and was approved by the CPUC on September 26, 2008. The work on Segment 3A has also been addressed in a separate NTP request and was approved by the CPUC on October 22, 2008.

PROJECT DESCRIPTION

The following section describing the Project was derived from the Antelope Transmission Project Environmental Impact Report (Aspen 2006) and has been updated to reflect current engineering and design.

Starting at the Highwind Substation, from Project Mile S3-0.0 to Project Mile S3-7.6, the new 220kV transmission line will be built in a 160-foot wide ROW adjacent to an existing ROW and from Project Mile S3-7.6 to Project Mile S3-9.6 within a new 160-foot wide ROW. Structures 1 through 14 are located within the first mile and a half. The proposed 220kV transmission line will utilize single-circuit 220kV tubular steel poles (TSPs) and lattice steel towers (LSTs). TSP and LST structures will be constructed using light-

medium gray galvanized steel. The poles will range in height from 70 feet to 155 feet and 21 of the TSPs throughout Segment 3B will be three-pole structures. The towers will be 113 feet and 125 feet in height. Each pole will be constructed on one drilled pier concrete footing and each tower will be constructed on four drilled pier concrete footings. The size of the foundation depends on topography, pole/tower height, span lengths, and soil properties. A typical pole footing will have an aboveground projection of approximately one to five feet and towers will have a projection of one foot.

Construction Methodology

Installation of the new 220kV transmission line will include five sequential phases. Hot work consisting of welding and cutting will be performed during all five phases: road preparation, site preparation, foundation installation, structure installation (includes assembly and erection), and wire stringing (includes conductor splicing).

Road Preparation

The first step for construction of the new 220kV transmission line is access road preparation. SCE submitted an Access Road Report on February 10, 2012, which is described in further detail below. Existing access roads along the existing SCE ROW corridor will be used to the greatest extent feasible in constructing Segment 3B. Existing access roads that are too narrow to accommodate equipment or require maintenance for constructability or safety reasons will be modified. This may involve smoothing ruts to widening the road to 18 feet (14-feet wide with an additional two-foot berm on each side) to accommodate large construction equipment. New temporary roads are proposed to access areas of temporary features that will be used to construct the Project such as guard pole structures. New temporary roads not required for ongoing maintenance of the new 220kV transmission line will be restored and re-vegetated in accordance with Mitigation Measures B-27b, APM BIO-2, and APM BIO-7 in the Habitat Restoration and Revegetation Plan. New permanent roads are proposed to provide access between and to structures where roads do not exist. There will be areas used as turning radii at intersections of proposed and existing roads so that vehicles can easily transition onto roads without causing a safety hazard. The Access Roads and Disturbance maps note locations where overland travel can be used in limited instances due to lack of existing roads. This involves allowing vehicle access to sites by driving over existing vegetation.

Site Preparation

A work area with a diameter of approximately 160 to 200 feet by 200 feet will be prepared at each construction structure site to provide a fairly level and safe working platform. Where necessary, structure sites, or an associated crane pad, would be graded or cleared of vegetation to provide a construction pad that is free of vegetation or any obstacles hindering structure construction. Preparation of the structure work areas will provide a stable area of sufficient size to assemble structure components and to properly set up the erection crane so that the crane boom can be located transverse to the structure at the greatest distance possible.

Foundation Installation

Once a structure work area has been prepared, the foundation(s) will be installed using standard "poured-in-place" augured excavation techniques. Typically, installation of the foundation requires:

- Final surveying to establish elevations and orientation
- Fabrication and installation of rebar cages
- Installation of anchor bolt cages for TSPs or stub angles for LSTs
- Concrete pouring
- Structure site re-contouring
 - Spoil resulting from augured excavations for LST structures will either be spread at the site within an area fifteen feet outside of the foundation footprint or within the 200-by-200 work area.
 - Spoil resulting from augured excavations for TSP structures located in agricultural land will be hauled off site to an approved location.

Foundations for TSPs will be of a single shaft drilled pier concrete foundation design. Full length reinforcing steel (rebar) cage is placed inside the excavated hole along with the anchor bolts. Single shaft foundations for TSPs used in this section of line may range from six to eleven feet in diameter and from 14 to 60 feet in depth. A drilled shaft of this size generates more spoils than can be effectively used to re-contour the site upon completion of the foundation. Excess spoils will be hauled to an approved disposal site to be recycled as clean fill on other projects in accordance with the stipulations of both the Vegetation Removal and Excavation Plan and Disposal and Waste Characterization Plan approved for the Project.

For steel lattice towers, each foundation is augered to the required depth and a full length reinforcing steel (rebar) cage is placed inside the excavated hole. The tower leg stub angle is set to its required dimensions and then held in place with a template while concrete is being poured. The final step is forming and finishing the reveal (exposed) portion of the foundation. On average, a typical foundation will have a reveal of approximately two feet but may vary from six inches to three feet depending on terrain.

Lattice steel towers will be constructed on four concrete foundations. The dimensions for each foundation will be dependent upon line angle, topography, tower height, span length, and soil properties. Typically the foundations will range from four to six feet in diameter and have a depth of 15 to 30 feet.

Installation of the concrete foundations for LSTs or TSPs requires the use of heavy construction equipment, including: auger units, rough terrain cranes, rock drills, air compressors, crawler tractors, crawler excavator, front-end loaders, dump trucks, water trucks, concrete trucks, boom trucks, flatbed trucks, crew hauling trucks, and tractor trailers.

Structure Installation

Once the foundations have been cured and deemed ready for structure installation, several truck tractor/trailer units, flatbed trucks and on-site loaders/forklifts will haul, unload and stack bundles of steel at each tower location and pole components at each pole location. An assembly crew will assemble the tower/pole components ahead of a tower/pole erection crew that will erect the assembled structures.

Tower/Pole Assembly

The tower/pole components will be assembled on-site. Assembly crews will use various pieces of heavy equipment to complete their portion of the work, which may include setting tower legs. Assembled components will be placed on wood blocking for the erection crew to facilitate the lifting capacity of the erection cranes. Equipment required for tower/pole assembly includes: material hauling trucks, crew hauling trucks, air compressors, rough terrain hydraulic crane – 30 to 40 ton capacity, crawler tractor with dozer, boom trucks, water truck, and firefighting tool box.

Tower/Pole Erection

The towers/poles will be erected in stages using conventional and rough terrain hydraulic cranes with the lifting capacity for the components being erected, such as preassembled tower panels, boxed sections, and bridges. During the erection operations, the erection crew may opt to install insulators and wire rollers. Upon completion of tower/pole erection, the construction pad will be left in place for use by the wire stringing crew for the purpose of setting up wire stringing and high-reach man lift equipment. Equipment required for structure erection includes: crawler tractor with dozer (Cat D8 size), material hauling trucks, 250-ton hydraulic erection crane with 230-foot boom, 4x4 forklift, boom truck(s), flatbed rigging truck, crew hauling truck, water truck, air compressors, and firefighting tool box.

Wire Stringing

Wire pulling sites will be established at predetermined disturbance locations. The wire installation crew will make extensive use of helicopters for movement of crews, movement of tools and equipment, installing insulators, hanging stringing sheaves, pulling sockline cables and monitoring wire pulling portion of the wire stringing operation. The wire stringing operation consists of the following activities: prepare wire pulling and

wire stringing sites, install insulator assembly on the towers/poles, hang stringing sheaves, haul and set up wire pulling and tensioning equipment (movement of wire stringing equipment in many cases will require transporting heavy equipment on lowboy trailers from site to site), install wire catch-off snubs, string in overhead fiber optic cable (OPGW), string conductor wire, splice conductor wire, sag conductors and OPGW, remove string sheaves and attach conductor wire to insulators (clipping), dead-end wires (install compression dead-end assemblies), and install jumper wires on dead-end structures.

The area required for wire stringing and pulling sites will be the entire width of the ROW and 300 feet in length. A three to one ratio from the break-over structure to the puller or tensioner is mandatory. It is the goal to have the wire pulling sites spaced a distance of two full reel lengths (approximately three miles) apart. In rough terrain with limited conventional road access, the degree of angle of dead-end structure limits the choices for wire stringing and pulling locations.

The wire stringing setup locations will include buried wire snubbing devices, tensioning equipment, wire reel trailers and wire sagging winch tractors. Buried wire snubbing devices are only required when the stringing setup is between two tangent structures. When stringing from a dead-end structure, the wire is typically snubbed to the structures dead-end plates. The equipment required at wire stringing locations is as follows: truck mounted – two bundle 72-foot bullwheel wire tension machine, truck mounted – three drum fly-line pulling machines (equipped with 3/8-inch steel pulling cable), tractor trailer two reel wire stringing reel trailers for 96-inch diameter reels, three crawler tractors equipped with dozers and wire sagging winches (Cat D8 size), crawler tractor used for dozer work and equipment towing (Cat D8 size), rigging truck, crew hauling trucks, high-reach man lift boom trucks, boom truck, water truck, firefighting tool box, and R/T crane (changing out conductor reels).

The wire pulling sites are located in areas according to structure type and the terrain length of the prescribed pull. Conductor pulling machines appropriately sized for the conductor being strung are trailer mounted single drum type, with the drum holding approximately 21,000 feet of 3/4-inch steel pulling cable (sockline). The following equipment is required at wire pulling sites: two – single drum wire pullers with 21,000 feet of 3/4-inch pulling line, two – truck tractors attached to each pulling machine, crawler tractor (Cat D6 size) for towing and anchoring the conductor pulling machines when pulling wire, crawler tractor (Cat D8 size) to catch wire pulled in for the purpose of holding the tension and installing conductor splices, optical ground wire tensioner reel truck, boom truck, crew hauling trucks, splice truck, water truck, and fire fighting tool box.

Wire Splicing

During stringing operations, the length of conductor wire pulled will be greater than what is provided on a single reel requiring that two or more reels are "temporally spliced" using flexible or double sock type grips joined with a steel pulling swivel. These temporary splices will be removed and a compression splice installed in their place. The splicing operation will occur mid-span between structures. Equipment requiring road access to the splice location will include: 6x6 splice truck, crew hauling equipment, and fire fighting tool box.

Telecommunication Facilities

Telecommunication facilities will be co-located on the transmission structures and splicing locations for installation will occur within the construction work areas identified in the Access Roads and Disturbance Maps.

Guard Structures

The purpose of a guard structure is to protect the public from pulling cables and wires at road crossings and to protect existing power line crossings. Guard structures will be established prior to wire stringing or splicing. A temporary guard structure consisting of upright poles and pole cross-arms will be set at the edge of main access roads, highways and at existing power lines being crossed to allow public and construction traffic to move freely along the roads during construction of the transmission line. The following equipment is required for the construction of guard structures: 4x4 crew truck pickup, 6x6 truck tractor with pole trailer, truck-mounted auger unit, 25-ton boom truck type crane, and loader backhoe (580 case type).

Helicopter Usage and Storage

Helicopters will be used during construction of the new 220kV line to support all construction activities. Uses may include: transporting personnel and tools to structure sites and onto the structures, transporting personnel performing environmental and cultural resource monitoring, construction quality control and site visits, installing structure insulator assemblies, and installing wire stringing sheaves and pulling cables.

Helicopters will be stored and operated out of the Fox Field Airport. Helicopters supporting Segment 3B construction activities will require landing areas at selected locations along the route. These areas will be selected during construction by personnel qualified to assess impacts resulting from their use. Helicopter fueling will take place at various locations along the right-of-way, primarily at wire stringing pulling and tensioning areas depicted on the Access and Disturbance Maps.

The primary fueling site for this section of line will be the Fox Field Airport. SCE is in the process of determining whether an additional location for a secondary helicopter fueling area along the ROW is necessary. Any location proposed for use will be provided to the CPUC for approval prior to use.

FAA Determination

The Federal Aviation Administration conducted aeronautical studies under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77 for the 22 structures. These aeronautical studies revealed that the proposed 3B transmission line structures do not exceed obstruction standards and would not be a hazard to air navigation provided that FAA Form 7460-2, Notice of Actual Construction or Alteration, is completed and returned to the FAA office any time the project is abandoned or within 5 days after the construction reaches its greatest height. Seventy-nine (79) structures were analyzed and twenty-two (22) required filing with FAA. Determination of No Hazard to Air Navigation (DNH) were received for all 22 structures on September 15, 2011 and September 19, 2011.

Activity Schedule

Construction of Segment 3B is anticipated to continue through the end of December 2012. Work will generally be scheduled in daylight hours (6:00 a.m. to 6:00 p.m.), Monday through Sunday, if needed. Kern County does not have any construction noise ordinance restrictions on work hours or days.

- **Access Roads.** On February 10, 2012, SCE submitted the report titled *Southern California Edison, Antelope Transmission Project, Segment 3B, Access Roads Report – Structures 3B-1 through 3B-14*, dated February 2012. The report presents the activities to be conducted to support compliance with Hydrology and Water Quality, Visual Resources, Biological Resources, Cultural Resources, and Geology, Soils and Paleontology mitigation measures.

Need for New Roads

In order to provide safe travel conditions for construction vehicles and equipment, a minimum road width of 14 feet is required. This area is the drivable surface of the road and does not include any berms or associated road edge that may extend up to two feet beyond the driving surface on each side. In addition, existing curves on roads may not be adequate to allow for the turning radius required by large equipment. The type of equipment used to construct this Project may require up to an additional 100 feet of drivable road surface for an adequate turning radius; in most cases the road surface will only need to be expanded approximately 45 feet. In general, this equipment requires temporary access roads capable of safely handling loads that are 12.5 feet wide and up to 65 feet long.

Road Design Criteria

Access along the Project alignment was reviewed to evaluate where existing access was adequate and where new roads would be required. Access to the right-of-way (ROW) is required for tower construction and erection, as well as access to wire set-up sites and other ancillary areas. The specific design of the access

roads is based on safety considerations, mitigation measure requirements, existing terrain and field verification of the designs. Key issues that were addressed during the design phase include limiting impacts to sensitive biological communities (Joshua tree, juniper woodland, and montane shrub/scrub), cultural and paleontological resources, road visibility, and road gradient. Specific design is also based on SCE specifications.

Road Gradient

Mitigation Measure H-1b: Maximum Road Gradient, states the following:

“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.”

The Project area is located in varied topography, including areas of very steep terrain. Limiting road gradients to ten percent in steep terrain requires starting new roads a long distance away from the Project areas and installing a large number of switchbacks. As a result, longer roads with switchbacks would require a substantial amount of cut and fill and would likely have a greater visual impact. This additional disturbance also increases the amount of disturbance to native vegetation and subsequent revegetation required for the Project. The proposed access roads that have been designed would provide a safe route for personnel and equipment, as well as minimize disturbance to the extent feasible. For a portion of one road (approximately 37 percent of Access Road (AR) 11-14), the gradient exceeds ten percent due to the existing terrain and topography. While in conflict with Mitigation Measure H-1b, this road achieves an appropriate balance between the visual impacts associated with longer roads with many switchbacks, the cut and fill requirements, the potential erosion issues associated with steeper, longer grades, avoidance of cultural sensitivities, and the need to minimize disturbance to native vegetation communities and wash areas. When factoring in these conditions, it is not anticipated that there will be an increased environmental impact due to surpassing the ten percent gradient.

Road Visibility

The following mitigation measures and APM pertain to road construction and visual impacts:

- V-1b: Construct, Operate, and Maintain with Existing Access Roads. In locations designated by the CPUC, SCE shall construct the new transmission line using existing access roads and spur roads. SCE shall consult with the visual specialist designated by the CPUC 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 for review and approval at least 60 days prior to the start of construction.
- V-9: Construct New Access and Spur Roads with Least Visual Disturbance. SCE and its contractors shall design all new access and spur roads such that they are located in the least visually obtrusive locations, that they follow the lay of the land, that cut-and-fill slopes are minimized, that vegetative patterns are protected or enhanced, and that the least number of roads are created. SCE shall consult with the visual specialist designated by the CPUC to ensure that the objectives of this measure are achieved. SCE and its contractors shall construct and maintain access and spur roads to minimize visual contrasts of form, line, color, texture, and scale. 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 other affected agencies for review and approval at least 60 days prior to the start of construction.
- APM VIS-2: Location of new spur roads. New access spur roads would be located to minimize visibility from public roads and trails especially in the Portal/Ritter Ridge (Segment 2) lands and the Tehachapi Mountains areas (Segment 3).

Roads are proposed to limit the amount (total distance) of new roads to that absolutely necessary for the safe construction of the Project. The Project is located in several areas where there are no other roads or the existing roads are inadequate. Current access to the area required four-wheel drive vehicles. As a result, new permanent access roads will be required in order to construct the 220kV transmission line. Additionally, these roads are necessary for regular access for operations, maintenance, and emergencies beyond the duration of construction.

KOP 1 – Highway 58 and Jameson Street

For Segment 3B, Structures 3B-1 – 3B-14, there are new permanent and temporary access roads that will be constructed within the view shed of Key Observation Position (KOP) 1 as identified in the FEIR. There are seven roads comprising a total length of approximately 8,857 feet needed for construction of Structures 3B-1 to 3B-14. These roads pass through undeveloped rural areas and the industrial wind turbine fields near both Windhub and Highwind Substations. Current access to the Project is mostly closed to public use except where the line crosses Tehachapi Willow Springs Road and the pedestrian Pacific Crest Trail. Overall viewer exposure to the Project is relatively low, given the area is devoted to industrial and wind turbine uses and has few residences and minimal traffic. The following permanent access roads for Segment 3B, Structures 3B-1 – 3B-14, are required:

- Access Road (AR) 1-7 would provide access to the first seven structures and would begin in Highwind Substation at Structure 3B-1 and end at Jameson Street near Structure 3B-7. It is a new, permanent road and will have a total length of approximately 4,435 feet with gradients between zero and 10 percent. There are no existing roads that could provide access directly to these structures. This new road is almost entirely within the ROW and once it continues south of Structure 3B-4, it is generally parallel to Jameson Street up to Structure 3B-7. Based on the visual simulation of KOP 1 in the FEIR (Figure C.11-2B), the proposed substation structures and Jameson Street will mostly obscure AR 1-7 in this viewshed. The approximate distance from KOP 1 varies from 0.8 miles near Structure 3B-1 to approximately 1.4 miles near Structure 3B-7. As a result, AR 1-7 will not present a new impact to visual resources in this area and is consistent with the existing character and industrial and wind turbine uses of the land.
- AR 7 is a new, permanent access road that will be approximately 163 feet long with a gradient of between zero and five percent. From KOP 1, it is approximately 1.4 miles away and will be mostly obscured by the Substation, and is likely too far away to be seen from this viewpoint where it intersects Jameson Street. (Note: AR 8 is a temporary access road.)
- AR 9 is a new, permanent access road that will be approximately 696 feet long and, at approximately 1.7 miles away, is a significant distance from KOP 1. It is therefore unlikely it would be visible from the viewshed of KOP 1. As a result, AR 9 will not present a new impact to visual resources in this area and is consistent with the existing character and both industrial and wind turbine uses of the land.
- AR 10 is a new permanent access road that is approximately 1.7 miles away from KOP 1. It is 61 feet long and does not exceed a three percent grade. As it is at the furthest edge of the KOP 1 viewshed and spans a ridgeline, it will not present a new impact to visual resources in this area and is consistent with the existing character and wind turbine and industrial uses of the land.
- AR 11-14 is a new permanent access road that is approximately two miles from KOP 1. It follows and drops below the ridgeline and, due to the higher elevation and topography, it is mostly obscured and would not be visible past Structure 3B-12. As a result, AR 11-14 would not present a new impact to visual resources in this area and is consistent with the existing character and both the wind turbine and industrial uses of the land.

- There are also several temporary roads proposed that would be restored after construction.

The FEIR describes the visual quality, viewer concern, viewer exposure, and overall visual sensitivity from KOP 1 to be moderate for the transmission line (Aspen, 2006, Section C.11 Visual Resources).

Timing of Construction

Mitigation Measure H1d: Timing of Construction Activities, states the following: “Construction activities, particularly regarding roadway installations and improvements, must not occur when precipitation events are expected.” Most precipitation typically falls between December and March in the Project area (Aspen 2006, p. C.7-14), but the intensity of storms can vary greatly during the rainy season. SCE will comply with this mitigation measure by constructing roads when soil and weather conditions are appropriate. Appropriate conditions include relatively dry weather and soil conditions; light precipitation and moist soil are unlikely to adversely affect soil conditions and should not preclude road building activities. Road building will not occur when soil is too wet to adequately support construction equipment and/or if soil structure is being adversely affected. When significant precipitation events are anticipated (i.e., 0.5 inches or greater of rainfall is expected) road building activities may be suspended. SCE’s engineering representatives will be responsible for determining when weather and/or soil conditions are not appropriate for road building to commence or continue. These parameters may include, but are not limited to: precipitation event expected in excess of 0.5 inches, excessive rutting and/or soil mixing, evidence of erosion and sediment runoff, significant soil compaction, and significant soil adhesion to vehicles and construction equipment.

- **Biological Resources:** SCE submitted a biological review with the NTPR by ICF International dated November 2011, titled *SCE Antelope Transmission Project, Segment 3B Transmission Line Biological Review*. The report discusses the literature review and focused field surveys conducted for the Project Component, including focused surveys conducted in 2010 and 2011 for sensitive species potentially occurring within the Antelope Transmission Project (ATP) right-of-way (ROW). Specific focused survey reports applicable to the Project Component include focused surveys for special-status plants, burrowing owl (*Athene cunicularia*), Swainson’s hawk (*Buteo swainsoni*), desert tortoise (*Gopherus agassizii*), American badger (*Taxidea taxus*), and Mohave ground squirrel (*Xerospermophilus mojaviensis*) conducted 2009 through 2011. This report also summarizes results of prior surveys conducted in 2009, 2010, and 2011 for the adjacent Tehachapi Renewable Transmission Project (TRTP), parts of which overlap the Project Component. The Project Component involves the construction of a new 220kV transmission line, extending approximately 9.6 miles from the northernmost point at the Highwind Substation southeast to the Windhub Substation. The Biological Survey Area (BSA) includes the Project Component (i.e., proposed transmission line alignment and associated access roads) plus a 500-foot buffer.

Potential impacts from access roads (excluding roads needing no improvement), Best Management Practices (BMP) areas, crane pads, culvert replacement, drainage repair, grading limits, guard poles, structure work areas, and wire setup sites will total approximately 152 acres. The majority of that acreage, approximately 49 acres, would occur on California annual grassland habitat. Of the remaining 103 acres, 31.35 acres of impact will occur on sensitive native habitats: Joshua tree woodland (18.51 acres), desert bunchgrass grassland (12.04 acres), and Mojave desert wash scrub (0.80 acres). In addition, 197.06 acres within the BSA remain to be surveyed and will be covered during preconstruction surveys. All impact areas adjacent to and within sensitive habitats will be field-adjusted to avoid and/or minimize impacts to sensitive species and habitats to the greatest extent feasible.

Vegetation Communities

Fifteen vegetation communities were identified within the BSA, and six of these, bunchgrass grassland, desert bunchgrass grassland, Joshua tree woodland, Mojave desert wash scrub, Southern willow scrub, and valley oak woodland, are considered sensitive natural vegetation communities (ICF 2011gt). Native vegetation will be avoided to the maximum extent feasible, and biological monitoring will assist in avoiding

and/or minimizing impacts to these sensitive habitats. Impacts to Joshua trees will also be avoided. The Project Component is not located within federally designated Critical Habitat for any species. Impacts to occupied burrowing owl and Mohave ground squirrel habitat will be mitigated off-site per MMs B-10c and B-19b.

Plants

Three special-status plant species, Mojave Indian paintbrush (*Castilleja plagiotoma*), Bakersfield cactus (*Opuntia basilaris* var. *treleasei*), and adobe yampah (*Perideridia pringlei*), were identified within the BSA during the 2011 focused surveys (ICF 2011gt). No special-status plant were identified during the 2009 or 2010 focused surveys (AMEC 2009c; ICF 2010ag; LSA 2010e).

Wildlife Species

Vegetation communities within the BSA provide suitable habitat for 30 special-status wildlife species. Of these species, incidental special-status species detected during previous survey efforts include Cooper's hawk (*Accipiter cooperii*), sharp-shinned hawk (*Accipiter striatus*), golden eagle (*Aquila chrysaetos*), burrowing owl, ringtail cat (*Bassariscus astutus*), merlin (*Falco columbarius*), prairie falcon (*Falco mexicanus*), desert tortoise, loggerhead shrike (*Lanius ludovicianus*), LeConte's thrasher (*Toxostoma lecontei*), and desert kit fox (*Vulpes macrotis*).

Raptors

Vegetated areas within and adjacent to the Project Component provide suitable foraging for burrowing owl and Swainson's hawk, and also provides suitable nesting habitat for burrowing owl.

Reptiles

Desert tortoise habitat is present in the Project Component and the species has been documented in surrounding areas. No desert tortoise or sign of the species were detected during previous focused surveys (AMEC 2009e; ICF and ECORP 2010b; ICF and ECORP 2011a; ICF and ECORP 2011b; LSA 2010a). Potential burrows have been identified in the southern portion of the Project Component. Additionally, one adult desert tortoise and a potential burrow were independently observed during April 2009 surveys near the Windhub Substation (Sundance Consulting 2009 in AMEC 2009e). The Project Component provides suitable habitat for the San Diego horned lizard (*Phrynosoma coronatum blainvillii*) and this species has been historically recorded in the northeast corner of the BSA (CDFG 2011c).

Mammals

Two special-status mammal species, ringtail cat and desert kit fox, were incidentally observed during the Segment 3B focused desert tortoise surveys (ICF and ECORP 2011b). Occupied American badger dens were identified during the 2011 focused survey effort and suitable habitat for this species occurs throughout the BSA (ICF and ECORP 2011a; ICF and ECORP 2011b). Both known and potential desert kit fox dens have been identified throughout the BSA (AMEC 2009f; ICF 2011fa; ICF 2011ey; ICF and ECORP 2011a; ICF and ECORP 2011b). Potential roosts for both solitary and colonial bat species were identified within the southern portion of the BSA during preconstruction bat habitat assessment surveys for the adjacent TRTP (ICF 2010bx; ICF 2011ac). While the Project Component is generally situated outside the range for the species, suitable Mohave ground squirrel habitat is present in the southern portion of the Project Component. Subsequent focused surveys were negative (ICF and ECORP 2011c; LSA 2010b). Additionally, no Mohave ground squirrels have been detected during surveys in the surrounding vicinity (AMEC 2009d). The Project Component provides suitable habitat for the Tehachapi pocket mouse (*Perognathus alticolus inexpectatus*) and this species has been historically recorded in the northwest corner of the BSA (CDFG 2011c).

Hydrological Features

Surveys for jurisdictional wetlands and waters of the United States and State have been completed for the Project Component. Streambeds and banks of any streams identified within the Project Component will be

avoided per APM BIO-5. If necessary, a Streambed Alteration Agreement (SAA) will be secured from CDFG and any impacts would be mitigated based on the terms of the SAA permit and any other additional regulatory permits.

- **Cultural and Paleontological Resources:** SCE submitted the following cultural resources reports in support of the Antelope Transmission Line/Tehachapi Renewable Transmission Project, Segment 3B, in Kern County, California. All of the reports were reviewed by Applied Earthworks, Inc. and approved in a letter dated February 16, 2012, with the exception of the last three reports, for which Applied Earthworks had specific comments that need to be addressed prior to final approval.
 - Pacific Legacy, 2011. *Extended Phase I Excavations for Five Sites (CA-KER-982, CA-KER-2434, CA-KER-7054, CA-KER-7055, and PL-SCE-Tehachapi-3B-01) Segment 3B, Tehachapi Renewable Transmission Project, Kern County, California.*
 - Pacific Legacy, 2012. Letter Report: *Confidential Supplemental Archaeological Survey Report for Segment 3B, Tehachapi Renewable Transmission Project, Kern County, California.*
 - Pacific Legacy, 2012. Letter Report: *Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*
 - Pacific Legacy, 2012. Letter Report: *Confidential Supplemental Archaeological Survey Report for El Paso Natural Gas Company Protection Areas Near Segment 3B Tehachapi Renewable Transmission Project, Kern County, California.*
 - Pacific Legacy, 2012. Letter Report: *Confidential Supplemental Archaeological Survey Report for Pacific Gas & Electric Company Protection Areas Near Segment 3B Tehachapi Renewable Transmission Project, Kern County, California.*
 - Pacific Legacy, 2011. *Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*
 - Panich, Lee and John Holson, 2010. *California Register of Historical Resources Evaluation of CA-KER-7687H for Southern California Edison Company Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*
 - Pacific Legacy, 2012. *Construction Phase Management Plan for Cultural Resources Associated with the Southern California Edison Tehachapi Renewable Transmission Project, Segment 3B, Kern County, California.*
 - Jackson, Tom, 2012. *California Register of Historical Resources Evaluation of Eligibility, Assessment of Potential Impacts and Mitigation Plan for Archaeological Site CA-KER-982, Kern County, California.*
 - Pacific Legacy, 2012. *Summary of Mitigation of Adverse Impacts to Archaeological Site CA-KER-7055 (AP3-132) for the Southern California Edison Company, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California.*

SCE submitted the following paleontological reports:

- Gust and Scott 2008. *Paleontological Resources Management Plan, Antelope Transmission Line, Segments 2 and 3.*

- Gust and Scott 2009. *Supplemental Archaeological and Paleontological Resources Assessment Report, Antelope Transmission Line, Segments 2 and 3.*

Per the Paleontological Resources Management Plan, sensitive soils for yielding paleontological resources exist at Structures 3B-1 through 3B-3 and at Structures 3B-5 through 3B-6. Paleontological monitoring is required at these locations during earthmoving activities.

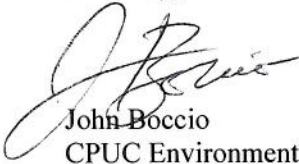
The conditions noted below shall be met by SCE and its contractors:

- Construction of new access and spur roads shall be done in accordance with the approved *Antelope Transmission Project, Segment 3B, Access Roads Report, Structures 3B-1 through 3B-14* dated February 2012.
- All sensitive resource buffers shall be flagged prior to site occupation/construction. Resource flagging shall be field verified by the CPUC Environmental Monitor (EM) prior to project area use.
- During the nesting season, sweeps for nesting birds shall include a 500 foot buffer. If active nests are found, a biological monitor shall establish a required 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. For *listed riparian species*, no work will be authorized within 500 feet of an active nest and all activities will stop immediately within 500 feet of the nest. 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. The buffer may be adjusted with the approval of CDFG and USFWS, and with prior knowledge of the CPUC. After complete sweeps have been submitted and approved by the CPUC EM, site occupation can occur; however, if occupation does not occur within seven calendar days of survey, biological clearance sweeps shall be re-conducted prior to site occupation, including nesting bird surveys during the breeding season.
- Prior to the commencement of construction activities, the *Antelope Transmission Project Segment 3B Desert Tortoise Avoidance and Mitigation Plan* prepared by ICF International, dated January 2012, shall be reviewed and approved by the CPUC. Concurrence from CDFG and USFWS shall be provided as well.
- Prior to conducting any ground disturbance or site mobilization, SCE shall provide documentation that all Bakersfield cactus (*Opuntia basilaris* var. *treleasei*) have been flagged for avoidance. This shall include documentation that the prescribed taxonomic keys have been accurately and consistently utilized by qualified botanists with experience with this species. SCE shall provide concurrence from the USFWS and CDFG that these measures are satisfactory to avoid take of this species.
- SCE shall submit the CDFG 1602 Streambed Alteration Agreement and any other applicable State and federal permits to the CPUC prior to work in areas covered under the permit(s). Any additional CDFG 1602 Streambed Alteration Agreements and/or Amendments shall also be submitted to the CPUC prior to work in areas covered under the permit.
- If special-status plant or animal species or bird nests are observed within the project area, CDFG and the CPUC EM shall be notified immediately (within 24 hours).
- If a Swainson's hawk (*Buteo swainsoni*) nest site is found during the time period of March 1 and September 15, consultation with CDFG shall be required prior to commencement of construction activities within ½ mile of the subject nest.

- Cultural Resources - Prior to construction, SCE shall submit responses to Applied Earthworks, Inc. comments from their letter of February 16, 2012, regarding the Construction Phase Management Plan, for CPUC review and approval.
- Cultural resource site (CA-KER-7750) shall be flagged and avoided. If the site cannot be avoided, testing and evaluation procedures shall be followed prior to construction in consultation with the CPUC.
- All other culturally sensitive areas shall be flagged for avoidance by a qualified archaeologist and approved by the CPUC EM prior to construction.
- If unanticipated biological, cultural or paleontological resources are detected, the CPUC EM shall be notified immediately.
- Per Mitigation Measure G-8, a certified paleontological monitor will monitor compliance at construction areas where excavation is being conducted in geologic units of moderate to high sensitivity (Structures 3B-1 through 3B-3 and Structures 3B-5 through 3B-6). Areas of low sensitivity will be spot-checked periodically. Paleontological monitoring reports will be submitted to the CPUC for review on a monthly basis.
- Per Mitigation Measure H-4, if it is determined that known groundwater resources would be unavoidable during construction, SCE will submit a Groundwater Remediation Plan to the CPUC and RWQCB for review and approval prior to the onset of any construction activities. If unknown groundwater resources are encountered, SCE will stop the disruptive excavation activity and submit a site-specific remediation plan to the CPUC and RWQCB for review and approval. Water may not be discharged on site, but may be held in a Baker Tank until the Plan is approved.
- All project mitigation measures, compliance plans, and permit conditions shall be implemented during construction activities and use of the proposed yard spaces. Some measures are on-going/time-sensitive requirements and shall be implemented prior to and during construction where applicable.
- Copies of all relevant permits, compliance plans, and this Notice to Proceed shall be available on site for the duration of construction activities.
- Prior to the commencement of construction activities, all crew personnel including haul truck and concrete truck drivers shall be appropriately WEAP trained on environmental issues including protocols for air quality, hazardous materials, biological resources, known and unanticipated cultural materials, as well as SWPPP BMPs. A log shall be maintained on-site with the names of all crew personnel trained.
- All work boundaries shall be flagged prior to occupation. In addition, all approved access roads, spur roads and overland travel routes to be used shall be flagged prior to construction.
- No movement or staging of construction vehicles or equipment shall be allowed outside of the approved areas. If additional temporary workspace areas or access routes, or changes to construction technique or mitigation implementation to a lesser level are required, a Variance Request shall be submitted for CPUC review and approval.
- All fueling for equipment and helicopters shall be conducted using saddle trucks at least 100 feet from aquatic resource areas. No fuel may be stored on Project sites.
- Prior to use of any proposed helicopter area, SCE shall submit maps of the area as well as verification that biological and cultural surveys have been conducted for review and approval by the CPUC.

- If construction debris or spills enter into environmentally sensitive areas, the jurisdictional agencies and CPUC EM shall be notified immediately.
- In the case of a hazardous materials spill, the CPUC EMs shall be immediately notified and an incident report shall be submitted to the CPUC within five (5) working days of the spill incident and shall include spill volumes and any resource damage that may have occurred.

Sincerely,

A handwritten signature in black ink, appearing to read "John Boccio", written over the printed name.

John Boccio
CPUC Environmental Project Manager

cc: V. Strong, Aspen