

PUBLIC UTILITIES COMMISSION

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November 8, 2011

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

RE: Tehachapi Renewable Transmission Project (TRTP), Segments 4-11: Notice to Proceed (NTP #32)

Dear Ms. Nelson,

On September 19, 2011, Southern Californian Edison (SCE) submitted a Notice to Proceed Request (NTPR) for the removal of existing 220 kV transmission lines and the construction of new 220 kV and 500 kV transmission lines from Vincent Substation to Structure 35 for the Segment 6A Transmission Line (T/L) of the Tehachapi Renewable Transmission Project (TRTP), in unincorporated Los Angeles County, California and the Angeles National Forest. Additional information was submitted on October 7 and October 13, 2011. **This NTP #32 is approved by CPUC based on the following factors:**

On September 21, 2011, the U.S. Forest Service issued Special Use Permit LAR 403064 for TRTP work in the Angeles National Forest. On November 7, 2011, the U.S. Forest Service issued a Notice to Proceed for Segment 6A T/L for TRTP work in the Angeles National Forest.

- SCE submitted the following information:

SCE requests a Notice to Proceed (NTP) for the removal of existing 220 kV transmission lines and the construction of new 220 kV and 500 kV transmission lines from Vincent Substation to Structure 35 for Segment 6A T/L for the TRTP, in unincorporated Los Angeles County, California and the Angeles National Forest. Segment 6A T/L spans approximately 7.7 miles along existing SCE right-of-way (ROW). Project activities will include routing the new Rio Hondo – Vincent No. 2 220 kV T/L, built to 500 kV specifications, and the new Mira Loma – Vincent 500 kV T/L. The new transmission lines will replace the existing Antelope – Mesa 220 kV T/L and the existing Rio Hondo – Vincent No. 2 220 kV T/L alignments.

Access road related construction activities will include: maintenance and grading, McCarthy drain removal and installation, culvert replacement installation, and new road construction, widening and/or realignment.

SITE LOCATION AND CONDITIONS

Segment 6A T/L includes structure removal and new structure construction. Structures will be removed from the following circuits:

- Antelope-Mesa 220 kV
- Rio Hondo-Vincent No. 2 220 kV
- Rio Hondo-Vincent No. 1 220 kV

Structures will be constructed on the following circuits:

- Mira Loma-Vincent 500 kV

- Rio Hondo-Vincent No. 2 220 kV (built to 500 kV specifications)
- Rio Hondo-Vincent No. 1 220 kV

Project activity will begin just south of Vincent Substation, where two double-circuit (DC) Lattice Steel Towers (LSTs) will be installed. Structure 1 will carry the Mira Loma-Vincent 500 kV T/L. Structure 2 will carry both the Mira Loma-Vincent 500 kV T/L and the Rio Hondo-Vincent No. 2 220 kV T/L (built to 500 kV specifications).

Structures 3 through 21 consist of two structures at each location, one for each primary circuit (Mira Loma – Vincent 500 kV T/L and Rio Hondo – Vincent No. 2 220 kV T/L).

Structures 3 through 7 will continue south for approximately 1.5 miles, reaching the ANF border. Structure 8 will be installed inside the ANF boundary, and the transmission lines will continue southeast into an ANF in-holding. Structures 9 through 14 will be located within an ANF in-holding, with Structures 11 and 12 consisting of three-pole DC structures carrying both the Mira Loma – Vincent 500 kV T/L and the Rio Hondo – Vincent No. 2 220 kV T/L (built to 500 kV specifications) to support a Los Angeles Department of Water and Power undercrossing. Structures 15 through 23 will be installed within the ANF. In this portion, two structures will be installed by helicopter construction methods, which will be constructed with micropile foundations. Additionally, a 0.6 mile section of the new Rio Hondo – Vincent No. 1 220 kV T/L will be installed. At M0-T1, the Mira Loma – Vincent 500 kV T/L will connect to and remain on an existing line from this point forward. The Rio Hondo – Vincent No. 2 220 kV T/L (built to 500 kV T/L specifications) will continue southeast from Structure 22 into an ANF in-holding, which will contain Structures 24 and 25. The transmission line will transition back to the ANF at Structure 26, and will remain within the ANF through Structure 32. Four of the structures in this portion will be installed using helicopter construction methods. An ANF in-holding located near Structure 30 contains existing access roads that will be used to access construction activities to the north and south of the property. The transmission line will cross into an ANF in-holding at Structure 33, and then will return to ANF property for Structures 34 and 35.

PROJECT COMPONENTS

Construction equipment operating hours for the removal, installation and upgrade of the transmission lines on Segment 6 T/L Structures 1 through 35 are planned to be from 7:00 a.m. to 7:00 p.m. SCE has established a TRTP toll-free information line (877-795-8787) and website (www.sce.com/tehachapi). The information line is the designated public notification contact for the TRTP.

Project Elements/Construction Activities

Project elements that will possibly be present or active throughout the construction of the transmission line include: maintenance of existing access roads and new access roads; wire setup sites (i.e., pull sites, wire splice sites, tensioning sites); transmission foundations, structures and wires; temporary guard structures; construction equipment and vehicles; helicopters and associated ground support facilities; and permit requirements (e.g., Best Management Practices).

Construction activities that will possibly be present or active throughout the construction of the transmission line include: vegetation removal/grubbing; grading for access roads and new access roads and site preparation; removal of existing foundations, structures, and wires; installation of foundations, tower/pole structures, and wires; operation of construction equipment and vehicles; operation of helicopters; installation, maintenance and removal of guard structures; implementation and installation, maintenance and removal of permit requirements; and material salvage and disposal.

Site Work

Site work for the removal and installation of the transmission lines will include grading for access roads and site preparation; removal of existing transmission structures/foundations, conductor and hardware assemblies; installation of new transmission foundations, structures, conductor and hardware assemblies. Specific information on these activities is provided below.

Access Roads

Construction of the new 500 kV structures will involve clearing, grubbing, and grading existing access roads. Where site conditions allow, existing access roads will be maintained to meet SCE and Forest Service specifications. Access road and maintenance will generally be allowed according to terms and conditions of existing SCE road permits. If possible within the existing berm or swale of the road, the graded road will have a minimum drivable width of 14 feet and preferably a shoulder width of an additional two (2) feet on each side (berm and swale) for a total minimum width of 18 feet.

Additionally, construction of new access or spur roads or reconstruction of existing access roads will be required. Road reconstruction or new spur road construction will require the use of road graders, water trucks, dozers, excavators, and backhoes.

Some roads may be capped to protect archaeological resources.

Vegetation adjacent to roadways may encroach on the existing roadway, or canopy cover may be too low for higher clearance vehicles. In such cases, trimming will occur where vegetation poses a blockage to vehicles either on the sides of the roadway or the canopy above. All trimming associated with existing access roads will occur either within the widened or realigned 18-foot road boundary or in the area above those boundaries (within the 15-foot maximum clearance height required for passage of construction vehicles). Trimming will be the minimum amount necessary to accommodate passage of the required construction vehicles for the activities in the area.

Additional access road improvements may include the following:

- **McCarthy drain removal, replacement, and installation.** This activity will include re-contouring of the local flow line and berm, installation of the wing walls and upper portion of the drain followed by the installation of the chute and energy dissipater.
- **Culvert replacement and installation.** This activity will include digging out the old culvert with a backhoe or excavator. The old culvert will then be lifted out, loaded, and transported to a designated demolition site for disposal. New corrugated metal culverts will be installed with sufficient diameter to accommodate the anticipated flows through the drainage.
- **Natural and concrete crossings.** Natural crossing locations will be contoured to reestablish the natural flow line at the low point of the crossing. Concrete crossing locations will include the installation of a concrete apron to match the width of the existing channel, with the upstream side of the crossing sloped downward into the channel to facilitate waters crossing the access road without undercutting the roadway. The soil below the apron will be compacted, and the edges of the crossing will be smoothed. Adjacent areas will then be re-contoured to match the installed concrete. Energy dissipation materials (stones, rubble, Gabions) will be placed downstream to reduce the erosion potential of the downstream surface.
- **Installation of retaining and slope stability walls.** A Gabion wall, Hilfiker wall system, or other retaining structure is required to repair existing slope failures or to prevent future slope failures. This activity will include the clearing of vegetation, grading to competent material, wall installation, and may include the permanent placement of wire mesh and washed rip-rap.
- **Installation of concrete crib slope stability walls.** Crib walls will typically be installed in areas that need permanent repair, are too steep for slope grading, and/or are necessary to reduce the graded disturbance area. Based upon site conditions, other retaining structures may be installed. This activity will include the permanent placement of concrete crib walls consisting of stretchers, headers, and silo.
- **Installation of temporary steel plates or wood mats.** Steel plates or wood mats may be used as temporary, single-layer crossings to minimize sedimentation, as necessary, in areas in which construction equipment needs to travel across protected waters, streams, or wetlands. Steel plates typically consist of two flat, steel plates with steel railroad-type rails bolted to the edges with rails wide

enough to support the wheels of large machinery. Wood mats may be used in lieu of steel plates due to location and/or field location. Wood mats are typically made from logs or sawn hardwood that are bolted together to attain the desired width.

- **Installation of debris fences.** Debris fences will be installed at specified locations to prevent rocks and soil from sliding onto roadways. The fences are typically placed a minimum of 10 feet uphill of the road edge to provide maximum debris capture and still maintain a passable roadway surface. The captured debris will be removed on a regular basis.

Site Preparation

Site preparation is necessary to accommodate removal of existing structures, installation of new tower sites, and to perform crane operation during the assembly of tower structures. Construction activities associated with the removal and installation of the transmission lines may include grading and vegetation removal. Additionally, some sites may be capped to protect archaeological resources.

Typically, the staging area for construction activities will be approximately 150 by 150 feet at each tower. In locations of relatively level terrain, only vegetation removal will occur to prepare the site for construction. In more rugged terrain or sloping site conditions, both vegetation removal and grading may be necessary to prepare the staging area for construction. Graded areas will be compacted to support equipment and vehicle traffic. The construction of new LSTs and tubular steel poles (TSPs) will occur on former tower sites, where possible.

Approximately 12 wire setup sites will be used for Segment 6A, including two oversized pull/tension sites. The size of a single-direction pulling site is approximately 200 by 200 feet. Some locations will require pulling in two directions, requiring two adjacent sites. The size of the sites will be determined by both terrain and environmental studies. The wire setup sites will be returned to their pre-existing condition prior to the close of construction.

Site preparation will be conducted in compliance with all permit requirements and will include installation of BMPs.

Major Aboveground Activities

Construction associated with this NTPR consists of the removal of 54 existing structures and the construction of 53 new structures to upgrade existing transmission lines for this portion of Segment 6. Planned construction activities for Segment 6A T/L are summarized as follows:

Installation and removal of guard structures. Three methods of guard structure will be utilized: guard poles, guard trucks, and flower pot guards, as described below:

- **Removal of 33 existing Antelope – Mesa Single-Circuit (SC) 220 kV T/L structures.** This activity will include removal of structures and their foundations (2 feet below grade), wires and hardware assemblies.
- **Removal of 19 existing Rio Hondo – Vincent No. 2 220 kV T/L structures.** This activity will include removal of structures and their foundations (2 feet below grade), wires and hardware assemblies.
- **Removal of two (2) existing Rio Hondo – Vincent No. 1 220 kV T/L structures.** This activity will include removal of structures and their foundations (2 feet below grade), wires and hardware assemblies.
- **Installation of 20 new Mira Loma – Vincent 500 kV T/L structures.** This activity will include 13 TSPs and seven (7) LSTs. Construction at each site will include installation of foundations, structures, and wires. This includes three DC structures.

- **Installation of 30 new Rio Hondo – Vincent No. 2 SC 220 kV (built to 500 kV specifications) T/L structures.** This activity will include 11 TSPs and 19 LSTs. Construction at each site will include installation of foundations, structures, and wires. The number of structures (30) does not include three structures to be installed for the Mira Loma-Vincent SC 500 kV T/L that will be used as part of this T/L.
- **Installation of three (3) new Rio Hondo – Vincent No. 1 SC 220 kV T/L structures.** This activity will include one three-pole TSP, and two LSTs. Construction at each site will include installation of foundations, structures, and wires.
- **Installation of temporary insulators and conductor.** Temporary insulators and conductor will be installed on Structure 2 to connect the Rio Hondo – Vincent No. 2 220 kV T/L (east circuit) to the new Mira Loma – Vincent 500 kV T/L (west circuit). The temporary insulators and conductor will be removed after the Rio Hondo – Vincent No. 2 220 kV is rebuilt.

Marker balls associated with the above structures may be installed per Federal Aviation Administration (FAA) requirements. All sites requiring helicopter construction will also require helicopter demolition. The removal of construction activities for these transmission structures will require a work area typically measuring 150 by 150 feet. These areas will be located within the existing ROW corridor or approved work areas. Additionally, an area measuring at least 50 by 50 feet will be used for a crane pad. Crane pads will be used for the conventional installation of structures.

Helicopter Construction

For construction of Structures 1 through 35, seven structures will be constructed by helicopter methods. Two structures will be constructed by helicopter on the Mira Loma-Vincent 500 kV T/L and five structures will be constructed by helicopter on the Rio Hondo-Vincent No. 2 220 kV T/L (built to 500 kV specifications). Helicopter construction required the use of helicopter assembly yards, helicopter landing zones, and helicopter support yards. Each is briefly described below.

Helicopter Assembly Yards. Helicopter assembly yards (HAYs) are required so that sections of the LSTs can be assembled prior to delivery to the structure sites. Medium- and heavy-lift helicopters will fly from these yards and transport the assembled sections of the LST to the structure site. Construction activities within the HAYs will fall into three categories: demolition, foundation support, and tower assembly, as briefly described below:

- During the demolition of the existing 220 kV towers, the HAYs will be used as receiving and shearing locations for the removed 220 kV LSTs.
- During foundation installations, the HAYs will be used as work sites for the preparation of grout and cement for the micro-pile foundation and pile cap installation.
- For the assembly and the erection of the new 500 kV LSTs, the HAYs will be used as work sites for the assembly of the tower sections to be flown to structure sites.

Hays will also be used for vehicle and equipment parking and storage and helicopter landing and operation. The HAYs may have portable toilets and generators. HAYs to be developed and used for this NTPR are Aliso Canyon and Millcreek Helispot. Activities associated with HAY development will include vegetation clearing and minor grading (as required) to facilitate the activities identified above. HAY development will be conducted in compliance with all permit requirements and will include installation of Best Management Practices.

Helicopter Support Yards. Helicopter support yards (HSYs) are required when using helicopters for transmission line construction because of the limited fuel supply that helicopters are able to carry. These yards will be 100 by 100 feet or larger, depending on the size of the helicopter, and the activities taking place at the yard. Several HSYs have been identified for Segment 6A. Best Management Practices will be implemented for fueling activities.

Helicopter Landing Zones. Helicopter construction landing zones (LZs) are required to off load personnel, tools, and equipment for structure sites at locations that cannot be accessed by a road. Some of the LZs

(not located in the recently burned area) may require some minor brush clearing to make conditions safe for the helicopter to land and will not be greater than 50 by 50 feet. Minor clearing may also be done to allow access to the tower site. Should the LZ be located on uneven terrain, the contractor will fly in a portable landing pad that will consist of four adjustable legs designed to sit on the uneven terrain, creating a flat surface for landing. These portable landing pads are made of metal and are up to 20 by 20 square feet. Several LZs have been identified for Segment 6A. One or more LZs will be maintained following construction for use during operations and maintenance activities.

Telecommunications

The work described in this document is necessary to maintain one fiber optic communication circuit during construction activities on the Rio Hondo – Vincent No. 1 220 kV T/L (intercept tower M27-T4A and replacements M31-T1 and M31-T2). Construction activities will occur in two locations to construct the shoo-fly and transfer the fiber optic circuit from the Rio Hondo – Vincent No. 1 220 kV T/L to the Rio Hondo – Vincent No. 2 220 kV T/L (built to 500 kV specifications):

- Work north of the ANF near Const 4 and Const 5
- Work in the ANF near Const 18 and Const 21

Description of Work North of the ANF near Const 4 and Const 5. This work will consist of the following items:

- Installation of one 35-foot Class 4 wood pole located just west of an existing project access road near Const 4 on the Rio Hondo – Vincent No. 2 220 kV T/L (built to 500 kV specifications).
- Installation of 282 feet of all-dielectric-self-supporting (ADSS) fiber optic cable (FOC) between the existing Rio Hondo – Vincent No. 1 220 kV T/L, tower M27-T4, and the existing Rio Hondo – Vincent No. 2 220 kV T/L, tower M27-T4.
- Removal of 1,321 feet of Skywrap FOC on the existing overhead ground wire (OPGW) from existing tower M27-T4 to existing tower M27-T5 on the Rio Hondo – Vincent No. 1 220 kV T/L via helicopter.
- Installation of 1,077 feet of Skywrap FOC on the existing OPGW from existing tower m27-T4 to existing tower M27-T5 on Rio Hondo – Vincent No. 2 with use of a helicopter.
- Installation of 70 feet of ADSS FOC between the existing Rio Hondo – Vincent No. 1 220 kV T/L, tower M27-T5, and the existing Rio Hondo – Vincent No. 2 220 kV T/L, tower M27-T5.
- Shoo-fly Disassembly: Once the contractor completes the Rio Hondo – Vincent No. 1 220 kV T/L scope of work for intercept tower M27-T4A and replacement of towers M31-T1 and M31-T2, the contractor will then remove the shoo-fly and place the FOC back to its original configuration. This work will require the same disturbance areas and construction activities as used for the shoo-fly installation.

Site Prep for Work North of the ANF near Const 4 and Const 5. To install the shoo-fly, construction crews will need access to four existing towers: M27-T4 and M27-T5 on both the Rio Hondo – Vincent No. 1 220 kV T/L and the Rio Hondo – Vincent No. 2 220 kV T/L. The FOC installed between these transmission lines will require vehicle and foot traffic between the two circuits along the alignment of the FOC being installed. It can be assumed that this vehicle and foot traffic ground disturbance will require an approximately 23-foot-wide temporary drive and crush disturbance area, avoiding any major vegetation.

Each existing tower will have a 100 by 100 foot disturbance area. The new wood pole will also have a 100 by 100 foot disturbance area.

Construction activities will include removal and installation of Skywrap FOC along existing Rio Hondo – Vincent No. 1 220 kV T/L and Rio Hondo – Vincent No. 2 220 kV T/L ground wire utilizing a Stihl 60cc Skywrap Tugger with Spinning Machine and an A-500 Helicopter. During the removal of the Skywrap FOC, there is a chance of small material scraps falling and landing under the removal spans. If this occurs, construction crews will access these locations by foot and collect any scrap material that has fallen on the ground. ADSS FOC will be installed between the Rio Hondo – Vincent No. 1 220 kV T/L and the Rio Hondo – Vincent No. 2 220 kV T/L, as described above, utilizing bucket trucks and an A-500 Helicopter.

For the wood pole installation, the crews will utilize a Polecat Digger Derrick (or equivalent) and bucket trucks. Approximate dimensions of the excavation area for the wood pole are 3 feet long by 3 feet wide by 6 feet deep.

Four new splice boxes will be installed on the existing Rio Hondo – Vincent No. 1 220 kV T/L and Rio Hondo – Vincent No. 2 220 kV T/L towers M27-T4 and M27-T5. In addition to the above listed equipment the crews will also use pick-up trucks.

Description of Work in the ANF near Const 18 to Const 21. This work will consist of the following items:

- Installation of 70 feet of ADSS FOC between existing Rio Hondo – Vincent No. 1 220 kV T/L tower M30-T4 and existing Rio Hondo – Vincent No. 2 220 kV T/L tower M30-T4.
- Installation of 103 feet of ADSS FOC between existing Rio Hondo – Vincent No. 1 220 kV T/L tower M31-T3 and existing Rio Hondo – Vincent No. 2 220 kV T/L tower M31-T3.
- Removal of 3,629 feet of Skywrap FOC on the existing OPGW from existing tower M31-T3 to existing tower M30-T4 on the Rio Hondo – Vincent No. 1 220 kV T/L.
- Installation of 4,470 feet of Skywrap FOC on the existing OPGW from existing tower M30-T4 to existing tower M31-T3 on the Rio Hondo – Vincent No. 2 220 kV T/L via helicopter.
- Shoo-fly Disassembly: Once the contractor completes the Rio Hondo – Vincent No. 1 220 kV T/L scope of work for intercept tower M27-T4A and replacement of towers M31-T1 and M31-T2, the contractor will then remove the shoo-fly and place the FOC back to its original configuration. This work will require the same disturbance areas and construction activities as used for the shoo-fly installation described in this document.

Site Prep for Work in the ANF near Const 18 to Const 21. To install the shoo-fly, construction crews will need access to eight existing towers: M30-T4, M30-T1, M30-T2 and M30-T3 on both the Rio Hondo – Vincent No. 1 220 kV T/L and the Rio Hondo – Vincent No. 2 220 kV T/L. The FOC installed between these transmission lines will require vehicle and foot traffic between the two circuits along the alignment of the FOC being installed. It can be assumed that this vehicle and foot traffic ground disturbance will require an approximately 25-foot-wide temporary drive and crush disturbance area, avoiding any major vegetation.

Each existing tower will have a 100 by 100 foot disturbance area. Construction activities will include removal and installation of Skywrap FOC along existing Rio Hondo No. 1 and No. 2 ground wire utilizing a Stihl 60 cc Skywrap Tugger with Spinning Machine (or equivalent) and an A-500 Helicopter. During the removal of the Skywrap FOC there is a chance of small material scraps falling and landing under the removal spans. If this occurs, construction crews will access these locations by foot and collect any scrap material that has fallen on the ground. ADSS FOC will be installed between the Rio Hondo – Vincent No. 1 220 kV T/L and the Rio Hondo – Vincent No. 2 220 kV T/L, as described above, utilizing bucket trucks and an A-500 Helicopter.

Four new splice boxes will be installed on the existing Rio Hondo – Vincent No. 1 220 kV and Rio Hondo – Vincent No. 2 220 kV towers M30-T4 and M31-T3. In addition to the above listed equipment, the crews will also use pick-up trucks.

Other Activities

Secondary Land Use – Corral Relocation. An existing horse corral in the ROW between Structures 11 and 12 will require reconfiguration to accommodate construction activities. The corral pen will be reduced by half its size, the horse stables connected to the corral will be reconfigured, and a container used as a barn will be shifted to the west by about 12 feet to create more room for the stable and corral pen. Specific activities associated with the corral reconfiguration include the following: remove and install t-posts, remove and install corral panels, use a skip-loader to shift the container/barn, disconnect and reestablish electrical connection to container/barn, and install sheets of plywood and corrugated metal for horse stables.

Distribution Line Dropping. There is an existing 12 kV distribution line between Structures 24 and 25. In lieu of installing guard structures to protect the 12 kV line at this location, the line will be de-energized and

lowered to the ground at poles located adjacent to the ROW. Prior to de-energizing the line, a power generator to maintain electrical service will be provided to the customers served by this line. This generator will remain in place until the crossing wires are secure and the 12 kV line is placed in its original state. It is expected that lowering the subject 12 kV line will occur at six different time periods.

The west side of the 12 kV distribution line will be accessed with bucket trucks via an approved access route. Access to other poles will be achieved by walking in and climbing each pole to lower and reinstall the wires. The lowered wires will be protected from damage by placing wood lagging under the wires. Protecting the wires where pulling lines may come in contact will be accomplished by the placement of wire covers.

- **Biological Resources:** SCE submitted a biological review with the NTPR by ICF International dated September 2011, titled *SCE Tehachapi Renewable Transmission Project Component – Segment 6A Transmission Line – Vincent Substation to Structure 35 Biological Review*. The report summarizes results of prior surveys conducted for the TRTP Study Corridor and discusses the literature review and focused field surveys conducted for the Project Component and a 500-foot buffer, referred to as the Biological Study Area (BSA). A literature search was conducted for the Project Component to determine the potential for special-status biological resources to occur within the 5-mile vicinity of the Project Component. Focused surveys were conducted between 2007 and 2009 for special-status plants, burrowing owl (*Athene cunicularia*), California spotted owl (*Strix occidentalis occidentalis*), arroyo toad (*Bufo californicus*), California red-legged frog (*Rana draytonii*), northern goshawk (*Accipiter gentillis*), southwestern willow flycatcher (*Empidonax traillii extimus*), western pond turtle (*Emys marmorata pallida*), two-striped garter snake (*Thamnophis hammondi*), and south coast garter snake (*Thamnophis sirtalis* spp.) along the Project Component, and adjacent to the Vincent Substation (Segment 9). Focused surveys for 2010 along the Project Component were conducted for special-status plants, regulated trees, burrowing owl, spotted owl, arroyo toad, and California red-legged frog. Focused habitat assessment surveys for potential colonial bat roosts along the Project Component have also been conducted. The general biological conditions, including major vegetation communities, plant and wildlife inventories, and hydrologic features, were documented for the BSA.

Special-Status Plants and Trees

Vegetation mapping of Segment 6A identified 22 vegetation communities within the BSA, six of which are sensitive vegetation communities including bigcone Douglas fir-canyon oak forest, Coulter pine forest, Mojave desert wash scrub, Riversidean alluvial fan sage scrub, southern cottonwood willow riparian forest, and southern willow scrub (ICF 2010au). Based on the 2010 and 2011 tree inventory, there are 21 regulated trees in the BSA including: arroyo willow (*Salix lasiolepis*), big-cone Douglas fir (*Pseudotsuga macrocarpa*), blue elderberry (*Sambucus cerulea*), California juniper (*Juniperus californica*), California scrub oak (*Quercus berberidifolia*), canyon live oak (*Quercus chrysolepis*), Coulter pine (*Pinus coulteri*), flowering ash (*Fraxinus ornus*), Fremont's cottonwood (*Populus fremontii*), Goodding's willow (*Salix gooddingii*), holly-leaved cherry (*Prunus ilicifolia*), incense cedar (*Calocedrus decurrens*), interior live oak (*Quercus wislizeni*), lodgepole pine (*Pinus contorta*), narrow-leaved willow (*Salix exigua*), red willow (*Salix laevigata*), San Gabriel oak (*Quercus durata gabrielensis*), singleleaf pinyon pine (*Pinus monophylla*), southern California black walnut (*Juglans californica*), sugar pine (*Pinus lambertiana*), and tuckers oak (*Quercus john-tuckeri*). There are five special-status plants located within the Project Component including: San Gabriel manzanita (*Arctostaphylos gabrielensis*), short-jointed beavertail (*Opuntia basilaris* var. *brachyclada*), San Gabriel mountains sunflower (*Hulsea vestita* ssp. *gabrielensis*), Mojave Indian paintbrush (*Castilleja plagiotoma*), and San Gabriel linanthus (*Linanthus concinnus*) (AMEC 2009w, ICF 2010au, 2011cq).

Special-Status Wildlife Species

California Spotted Owl – Habitat assessment and vegetation mapping along Segment 6 of TRTP were conducted in 2006 and 2007, and potentially suitable California spotted owl habitat areas were identified. Biologists conducted spotted owl focused surveys in 2007, 2008, and 2009 (AMEC 2007b, 2008a, and 2009t) to determine presence or absence and social, nesting, and reproductive status. In 2009, surveys were conducted between April and August at calling stations (stations) along Segment 6. Along Segment 6A, surveys occurred at two stations S06-A4 and S06-A5 for Mount Gleason Road. California spotted owls were not detected at either station (AMEC 2009t). A habitat assessment conducted in 2010 determined that potentially suitable habitat was no longer present at S06-A5 as a result of the 2009 Station Fire. Therefore, California spotted owl surveys for Segment 6A in 2010 and 2011 included only S06-A4 for Mount Gleason Road. California spotted owl was not detected at this calling station (ICF and BonTerra 2010i; ICF 2011cq).

Western Pond Turtle – During 2009, western pond turtle focused surveys were conducted in Kentucky Wash, and no western pond turtles or evidence of nesting was observed (AMEC 2009v). Western pond turtle surveys were conducted in 2010 at the Aliso Helicopter Assembly Yard (HAY-1) and were negative (ICF and BonTerra 2010h). No surveys for western pond turtle were conducted along Segment 6A in 2011.

Bats – Aerial photograph analysis was conducted to determine the locations of impact areas and the relative positions of potential roost habitat trees. For areas not adequately represented by aerial photographs or mapping, and those areas identified by the aerial photograph analysis as having potential roosting habitat, additional ground-based vehicle surveys and pedestrian surveys were used to map specific locations of roost habitat within 300 feet of project disturbance areas, including new access roads and within the corridor of existing access roads where medium, minimum, or no improvement is required (survey area). Attributes of any identified trees were recorded on a standard field form, and included information such as a geographic position system coordinate, tree species, tree tag number (if applicable), specific type of habitat, recommended action, and any other pertinent notes.

Burrowing Owl – Prior habitat assessment and focused surveys were conducted within the northern portion of the BSA for Segment 6 and Vincent Substation. The 2009 habitat assessment (Phase I) and burrow surveys (Phase II) observed two areas with potentially suitable burrowing owl burrows within the BSA. No burrowing owl, sign (i.e., scat, tracks, whitewash, or feathers), or active burrows were identified (AMEC 2009a); however, a burrowing owl was incidentally observed south of Vincent Substation in 2009. The 2010 surveys included Phase I and Phase II surveys as well as a Phase III, burrowing owl focused survey. Suitable habitat for burrowing owl was identified within the BSA. No burrowing owl sign was found on any of the burrows that could potentially be used by burrowing owl; therefore, only potentially suitable burrows were identified during the Phase II survey. No burrowing owl were observed or detected by the presence of sign during the 2010 surveys (ICF 2010dk). No burrowing owl surveys were conducted in 2011.

Wildlife Species Covered in the Biological Opinion

Arroyo Toad – Prior habitat assessments and protocol-level focused surveys were conducted for arroyo toad within Segment 6 in 2007, 2008, and 2009 (AMEC 2007e, 2008c, 2009y). In 2008, 2009, and 2010, focused arroyo toad surveys were conducted at the Kentucky Wash site; no arroyo toads were detected at this site (AMEC 2008c, 2009y, ICF and BonTerra 2010k). Focused arroyo toad surveys were also conducted at the Aliso Helicopter Yard (HAY-1) in 2010 and 2011 and were negative (ICF and BonTerra 2010k, 2011c).

California Red-legged Frog – Prior habitat assessments and protocol-level focused surveys were conducted outside of the BSA (AMEC 2009aa). 2010 and 2011 California red-legged frog focused surveys within the BSA were conducted at Aliso Helicopter Assembly Yard (HAY-1) (ICF and BonTerra 2010j). No incidental observations of the species were made during other survey efforts.

Riparian Birds – In 2007 and 2009, habitat assessments and focused surveys for riparian birds were conducted on TRTP Segment 6 (AMEC 2007d, 2009x; Aspen 2009c). The 2007 riparian bird focused surveys for Segment 6 consisted of areas outside of the BSA (AMEC 2007d). In 2009, the survey areas for Segment 6 included a portion of Aliso Creek located within the BSA (different area than 2007 surveys). These surveys were conducted for willow flycatcher, and did not include surveys for least Bell's vireo. The 2009 survey results for Aliso Creek were negative for migrant willow flycatchers and breeding southwestern willow flycatchers (AMEC 2009x). The 2010 and 2011 riparian bird focused surveys for Segment 6 consisted of areas outside of the BSA (ICF 2010di).

California Condor – No focused surveys for the California condor (*Gymnogyps californianus*) have been conducted. However, the distribution and occurrence recording and tracking of this species is sufficiently robust to provide necessary data for project review. Historic and current California condor data published by the USFWS was reviewed including the USFWS designation of Critical Habitat for the condor (USFWS 1976) and the recent Species Actions Plans (USFWS 2009b). California condor is present in the ANF (USFWS 2010c; Aspen 2010).

Hydrological Features

Approximately 75 jurisdictional water features are proposed to be impacted by the Project Component. These drainage features are considered to be jurisdictional waters, subject to regulation by the U.S. Army Corps of Engineers (USACE), the State Water Resources Control Board (SWRCB), and the California Department of Fish and Game (CDFG). Applications for a Section 401 Water Quality Certification from the SWRCB, a Section 404 Authorization from the USACE under the Clean Water Act, and a Streambed Alteration Agreement from CDFG under Sections 1600-1616 of the California Fish and Game Code were submitted on September 8, 2010. In addition, a revised impact analysis was performed for engineering changes for the entire Segment 6 project alignment and submitted to the agencies of February 17, 2011. A 401 Water Quality Certification (File No. 11003IN) was received for the Segment 6 project alignment on August 23, 2011. The 404 Authorization (SPL-2011000735) was received on September 1, 2011. The 1602 Streambed Alteration Agreement is pending. The major hydrologic feature crossed by the Segment 6A Project Component is Kentucky Springs Canyon Creek. The majority of the impacts to jurisdictional features occur where features cross existing dirt access roads, which require maintenance grading. Such impacts are temporary in nature and occur entirely within the unvegetated roadbed. Additional impact areas include: temporary construction areas (temporary grading limits, crane pads, pulling sites, wire setup sites, etc.), repair of existing McCarthy drains, installation of new McCarthy drains, permanent grading limits for the installation of new facilities such as towers, road stabilization (installation of gabion or debris fences), new hard wet crossings, and permanent widening of access roads to facilitate construction equipment.

- **Cultural and Paleontological Resources:** SCE submitted cultural and paleontological information with the NTPR for Segment 6A Transmission Line (T/L) from the Vincent Substation to the Structure 35 (Structures 1 – 35). Initial cultural resources surveys and assessments were completed for the TRTP by Pacific Legacy in 2007. The supplemental survey report, NRHP/CRHR evaluation reports, data recovery reports and resource capping reports were submitted for agency review. Several specialist reports and documents were prepared for the management of cultural resources along Segment 6 of TRTP, all of which were submitted for agency review. In addition to the initial cultural resources assessment for TRTP (Pacific Legacy 2007), two supplemental survey reports were completed for newly proposed project disturbance areas, titled *Supplemental Archaeological Survey Report, TRTP Segment 6, Los Angeles County, California* (Pacific Legacy 2011) and *Cultural Resources Assessment for Construction Access Road, Segment 6, TRTP* (Belcourt 2011). A formal NRHP/CRHR evaluation was performed on one cultural resource, and the recommendations are documented in the report titled *Supplemental Archaeological Investigation and NRHP/CRHR Eligibility Evaluation of Archaeological Site CA-LAN-3732H, SCE TRTP Segment 6, Los Angeles County, California* (Pacific Legacy 2011). This resource has been determined by consensus to be

ineligible for listing on NRHP or CRHR. Additionally, *TRTP Segment 6, Proposed Capping of Cultural Resources* (Pacific Legacy 2011) focused on alternative mitigation measures to capping resources that are intersected by project roads. This plan has been approved by all Programmatic Agreement Signatories. One historic-era trash scatter was determined to be an Isolated Historic Refuse Deposit per the guidelines of Appendix K of the Construction Phase Management Plan (PL-SCE-Seg6-04). This resource does not warrant further management. Extended Phase 1 Testing was completed at four archaeological sites; the report detailing the findings is titled *Extended Phase 1 Testing at CA-LAN-2363, CA-LAN-3004, CA-LAN-3005H, and CA-LAN-3008* (Pacific Legacy 2011). Only two of these sites are within the area identified in this NTP for Segment 6A (CA-LAN-2363 and CA-LAN-3008). The others are further south along the Segment 6 alignment. Two cultural resources have been assumed eligible for NRHP and CRHR, which include CA-LAN-1128/H (Kentucky Springs) and FS# 05-01-55-229. Historic Property Treatment Plans (HPTPs) for these resources were developed and data recovery efforts are currently being implemented. Construction may not proceed in these areas until the data recovery fieldwork is complete, and the interim data recovery report is submitted to the agencies for review. The HPTPs for both of these sites include long-term plans for protection of unaffected portions of the site after construction of the TRTP.

Per the final Paleontological Resources Management Plan (PRMP) that was approved on August 22, 2010, paleontological monitoring is necessary only on a spot-check level during ground disturbance extending deeper than two (2) feet below surface in native soils at CT 1, 2, 6 and 7 of Segment 6. Soils at these locations are comprised of Quaternary Older Alluvium which is classified as a moderate level of sensitivity for harboring paleontological resources. Additional paleontological monitoring may occur in the instance that buried native soils reveal high sensitivity for paleontological resources.

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

- For all transmission line towers that require FAA mitigation, SCE shall only construct foundations, until approval for tower construction has been authorized by the CPUC. SCE shall not construct any wire spans that will require FAA mitigation, until approval for that work has been authorized by the CPUC.
- All applicable project mitigation measures, APMs, compliance plans, and permit conditions shall be implemented. Some measures have on-going/time-sensitive requirements and shall be implemented prior to and during construction where applicable.
- Work within the ANF shall not occur until ANF authorization (Special Use Permit) is issued.
- At least 14 days prior to the start of any construction-related activities, SCE shall provide notification to potentially affected property owners, and copies of the notification and distribution list shall be provided to the CPUC at the time of noticing (Mitigation Measures L-1a and L-1b). In addition, SCE shall provide all affected property owners with quarterly updates on any changes to the information provided in the pre-construction notification (Mitigation Measure L-1c).
- 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 (Mitigation Measure B-15). 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. 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). 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.

- SCE shall submit the CDFG 1602 Streambed Alteration Agreement to the CPUC prior to work in areas covered under the permit. 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.
- Prior to commencement of construction activities, all crew personnel including haul truck and concrete truck drivers shall be appropriately trained on environmental issues including protocols for air quality, hazardous materials, biological resources, known and unanticipated cultural materials, as well as SWPPP BMP's. A log shall be maintained on site with the names of all crew personnel trained.
- Refueling and fueling locations shall be a minimum of 100-feet away from existing drainages or water features. If construction debris or spills enter into environmentally sensitive areas, the jurisdictional agencies and the CPUC EM shall be notified immediately.
- Per the final Paleontological Resources Management Plan (PRMP), ground disturbance extending deeper than 2 feet in the area where soils are defined as Quaternary Older Alluvium (classified as moderate level of sensitivity for harboring paleontological resources), from CT 1, 2, 6 and 7, shall require spot-check monitoring during the course of ground disturbance extending deeper than 2 feet.
- Historic Property Treatment Plans (HPTs) for CA-LAN-1128/H (Kentucky Springs) and FS# 05-01-55-229 were developed and data recovery efforts are currently being implemented. Construction may not proceed in these areas until the data recovery fieldwork is complete, and the interim data recovery report is submitted to the agencies for review.
- If unanticipated biological, cultural or paleontological resources are detected, the CPUC EM shall be notified immediately.
- Per Mitigation Measure L-1a, SCE shall provide summary documentation to the CPUC of all complaints, comments, and concerns communicated to the liaison every two months for the duration of construction and for one year following the completion of construction.
- Los Angeles County approval or applicable Municipal Code reference shall be provided to CPUC for all future Sunday work or for work outside of the hours 7:00 AM to 7:00 PM, Monday through Saturday, prior to the commencement of work.
- Copies of all relevant permits, compliance plans, and this Notice to Proceed shall be available on site for the duration of construction activities.
- 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.

Sincerely,

A handwritten signature in black ink, appearing to read "John Boccio". The signature is fluid and cursive, with the first name "John" being more prominent and the last name "Boccio" following in a similar style.

John Boccio
CPUC Environmental Project Manager

cc: V. Strong, Aspen