

**PUBLIC UTILITIES COMMISSION**

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



October 10, 2013

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 #39)

Dear Ms. Nelson,

On August 14, 2013, 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 Gould Substation for the Segment 11C Transmission Line (T/L) of the Tehachapi Renewable Transmission Project (TRTP), in the City of La Cañada Flintridge, City of Pasadena, and unincorporated portions of Los Angeles County, California and the Angeles National Forest (ANF). Additional information was submitted to the CPUC on September 24, 2013. **This NTP #39 is approved by CPUC based on the factors noted below:**

**CPUC NTP #39 authorizes construction of Segment 11C on non-ANF lands only.** On September 21, 2011, the U.S. Forest Service issued Special Use Permit LAR 403064 for TRTP work in the Angeles National Forest (ANF). On April 19, 2013, the ANF notified SCE that authority to construct the TRTP transmission line within the ANF “is held in the Special Use Permit that the Forest Service already issued to SCE”. The Forest Supervisor “will no longer be issuing separate Notice to Proceed letters”.

- 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 Gould Substation for Segment 11C T/L for the TRTP, in the City of La Cañada Flintridge, City of Pasadena, and unincorporated portions of Los Angeles County, California and the Angeles National Forest (ANF). Segment 11C T/L spans approximately 19 miles along existing SCE right-of-way (ROW) from Vincent Substation to Gould Substation. Project activities will include routing the new Mesa – Vincent No. 2 220 kV T/L, built to 500 kV specifications; building the new Pardee – Vincent No. 1 and 2 220 kV T/L; and performing modifications to the Mesa – Vincent No. 1, Santa Clara – Vincent, and Eagle Rock – Pardee transmission lines. The new transmission lines will replace the existing Pardee – Vincent 220 kV T/L alignment and a portion of the Eagle Rock – Pardee 220 kV T/L alignment.

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

**SITE LOCATION AND CONDITIONS**

Segment 11C T/L includes structure removal and new structure construction including foundations. Structures will be removed from the following circuits:

- Former Saugus-Vincent 220 kV (new Pardee – Vincent No. 1 220 kV)
- Former Antelope – Eagle Rock 220 kV (new Pardee – Vincent No. 2 220 kV)
- Eagle Rock – Pardee 220 kV
- Pardee – Vincent 220 kV

Structures will be constructed on the following circuits:

- Pardee – Vincent No. 1 220 kV
- Pardee – Vincent No. 2 220 kV
- Mesa – Vincent No. 2 220 kV (built to 500 kV specifications)

The northern portion of Segment 11C begins at the south side of Vincent Substation. Between the Vincent Substation and the Gould Substation, the existing LSTs currently supporting the Pardee – Vincent No. 1 220 kV T/L (approximately the first 4 miles) and the Eagle Rock – Pardee 220 kV T/L (approximately the last 15 miles) will be removed and replaced by the new Mesa – Vincent No. 2 500 kV T/L structure (see discussion below). The remaining portion of the existing Pardee – Vincent No. 1 220 kV T/L circuit will be routed over to the existing idle 220 kV towers (section of the Pardee – Vincent No. 2) to maintain the circuit into the Vincent Substation. The remaining northern portion of the existing Eagle Rock – Pardee 220 kV T/L circuit, which currently travels in an east-west direction for approximately 20 miles, will be routed to a second group of idle 220 kV towers (3.6 mile section of what was once the Eagle Rock – Vincent 220 kV T/L) to maintain the circuit into Vincent Substation, thereby completing the new Pardee – Vincent No. 2 220 kV T/L circuit.

The existing idle 220 kV tower lines discussed above currently head south from Vincent Substation approximately 3.6 miles. As noted above, the southern portion of the Eagle Rock – Pardee 220 kV T/L will be demolished and replaced with 500 kV towers to complete the 500 kV Mesa – Vincent No. 2 circuit. The remaining southern-most portion of the Eagle Rock – Pardee 220 kV T/L circuit, geographically between the Eagle Rock Substation and a point just outside of the Gould Substation, will be routed into the Gould Substation utilizing new structures thereby completing the new Eagle Rock – Gould 220 kV T/L circuit. These reroutes will each require approximately three new LSTs.

Once the existing Pardee – Vincent No. 1 and Eagle Rock – Pardee 220 kV T/L structures are removed, the new Mesa – Vincent No. 2 500 kV T/L (a.k.a. Gould – Vincent 500 kV T/L) will be built supported by towers to be constructed in approximately the same locations. The new 500 kV T/L will exit Vincent Substation and travel west for approximately 0.25 miles, and then continue in a southerly direction to Gould Substation. For the first 0.9 miles, Segment 11C (to the west) will parallel Segment 6 (to the east). As noted above, a combination of existing Pardee – Vincent No. 1 220 kV LSTs and new 220 kV LSTs as part of the Pardee – Vincent No. 2 220 kV T/L will be utilized to provide for a connection to the Vincent Substation. From there, the new 500 kV T/L will proceed south-southwest approximately 4 miles, where the existing Pardee – Vincent No. 1 220 kV T/L structures will be replaced by the new Mesa – Vincent No. 2 500 kV T/L structures. Segment 11C will continue in a south-southwest alignment approximately 15 miles to Gould Substation, where the existing Eagle Rock – Pardee 220 kV T/L structures will be replaced by the new Mesa – Vincent No. 2 500 kV T/L structures.

The new Mesa – Vincent No. 2 500 kV T/L will cross over/under several SCE 220 kV T/Ls and the LADWP Toluca – Victorville No. 1 500 kV T/L Construct 11A, as well as Highway 2 at several places along the route. Following construction of Segment 11C, the following T/L circuits will exist:

- Pardee – Vincent #1 (220 kV)
- Pardee – Vincent #2 (220 kV)
- Eagle – Gould (220 kV)
- Santa Clara – Vincent (220 kV)
- Mesa – Vincent #1 (220 kV)
- Mesa – Vincent #2 (energized at 220 kV, although built at 500 kV between Vincent and Gould Substations).

Project components within the ANF are under ANF jurisdictions; project components to the south of the ANF, and within in-holdings are under CPUC jurisdiction.

## **PROJECT COMPONENTS**

Construction equipment operating hours for the removal, installation and upgrade of the transmission lines on Segment 11C T/L Vincent Substation to Gould Substation 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](http://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 including telecommunication lines; installation of foundations, tower/pole structures, and wires including telecommunication lines; 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; and installation of new transmission foundations, structures, conductor and hardware assemblies. Specific information on these activities is provided in the following sections.

### **Access Roads**

Construction of the new T/L 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 maintenance will generally be allowed according to terms and conditions of existing SCE road permits. Maintenance is defined as ongoing upkeep of an existing road necessary to retain or restore the road to the approved road management objective. Typically, the road will have a minimum drivable width of 14 feet and preferably a shoulder width of an additional 2 feet on each side (berm and swale). The road will be wider at turns based on the radius of the turn.

Three levels of road maintenance have been identified for the existing Segments 6 and 11 access roads: minimum, medium, and heavy, as described below.

#### Minimum Road Maintenance

Minimum road maintenance will occur within the existing flat surface of the road bed, not including adjacent berm and/or swale. Minimum road maintenance will include scraping, grubbing, and brush clearing.

#### Medium Road Maintenance

Medium road maintenance will occur within the existing road bed, including the adjacent berm and/or swale. Medium road maintenance includes blading, removal of deeper ruts and washouts, and establishing the specified drivable width within the adjacent berm and/or swale. Regrading and repair of existing access and spur roads will be to USFS standards within the ANF. These roads will be cleared of vegetation; blade-graded to remove potholes, ruts, and other surface irregularities, and reestablish the side berm and swale;

and recompacted to provide a smooth and dense riding surface capable of supporting heavy construction equipment. Medium road maintenance will include the use of road graders and water trucks. 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 2 feet on each side (berm and swale).

#### Heavy Road Maintenance

Heavy road maintenance includes all activities described for medium road maintenance, but the disturbance area may extend outside of the existing adjacent berm and/or swale to achieve USFS standards and minimum drivable width. Alternatively, or additionally, construction required for heavy road maintenance may require the use of dozers or backhoes in addition to road graders and water trucks.

In some cases, vegetation adjacent to roadways may encroach on the existing roadway, or canopy cover may be too low for higher clearance vehicles. 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 20-foot maximum clearance height required for passage of construction vehicles). Trimming and/or removal will be conducted when necessary to accommodate passage of the required construction vehicles for the activities in the area. Trimming of native trees or oak trees will be evaluated by a USFS botanist or qualified arborist in accordance to Mitigation Measure B-1a.

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.

#### **Additional access road improvements may include the following:**

- **McCarthy drain removal, replacement, and installation.** This activity will include recontouring 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, when required.
- **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 recontoured 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. A debris fence is currently planned for the access road to Construct 61.

### 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 200 by 200 feet at each tower. In locations of relatively level terrain, site preparation may be limited to vegetation removal. In more rugged terrain or sloping site conditions, additional site preparation activities may be required for construction, including but not limited to vegetation removal and grading. Within some areas impacted by the Station Fire (e.g., HAYs and Mount Gleason Road) work areas are provided to remove burned and dead trees that may pose a safety hazard. 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.

Various wire setup sites will be used for Segment 11C. The size of a typical single-direction pulling site is approximately 200 by 200 feet. Some locations will require pulling in two directions, requiring two adjacent sites. The size and location of the sites will be determined by terrain, construction need, environmental studies, and final engineering.

Site preparation will be conducted in compliance with applicable permit requirements and will include installation of Best Management Practices (BMPs).

### Major Underground Activities

Underground construction will include telecommunications construction activities described in Section 3.2.6.

### Major Aboveground Activities

Construction associated with this NTPR currently consists of the removal of 71 existing structures and the construction of 76 new structures to upgrade existing transmission lines for this portion of Segment 11C. These numbers may change based on final engineering. Planned construction activities for Segment 11C are summarized below. Tables 1a and 1b provide inventories of the structures planned for demolition and construction, respectively.

- **Removal of approximately 16 existing Pardee – 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.
- **Replacement of approximately 3 existing former Antelope – Eagle Rock 220 kV (new Pardee – 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. Construction at each site will include installation of foundations, structures, and wires.

- **Removal of approximately 50 existing Eagle Rock – Pardee 220 kV T/L structures.** This activity will include removal of structures and their foundations (2 feet below grade), wires and hardware assemblies.
- **Replacement of 2 and installation of 2 former Saugus – Vincent 220 kV (new Pardee – Vincent No. 1 500 kV) T/L structures.** This activity will entail removal of 2 structures and construction of 4 LSTs. Demolition activities will include removal of structures and their foundations (2 feet below grade), wires and hardware assemblies. Construction at each site will include installation of foundations, structures, and wires. Note that one of these structures (Const 9) will carry Pardee - Vincent No. 1 and Mesa - Vincent No. 2 lines.
- **Installation of approximately 69 Mesa – Vincent No. 2 220 kV (built to 500 kV specifications) T/L structures.** Construction at each site will include installation of foundations, structures, and wires.

As shown in Table 1a, modifications will be made on six towers: M15-T1a (former Antelope – Eagle Rock), M28-T5 (Pardee – Vincent), M29-T1 (Eagle Rock – Pardee), M29-T1 (former Saugus – Vincent), M18-T2 (Mesa – Vincent), and M32-T4 (Mesa – Vincent and Santa Clara – Vincent). The modifications will include replacement of arms, rebracing, and arm additions for transposing lines. Marker balls associated with the above structures may be installed per Federal Aviation Administration (FAA) recommendations. Marker ball installation is planned to occur after wire stringing. The removal of construction activities for these transmission structures will require a work area typically measuring 200 by 200 feet. These areas will be located within the existing ROW corridor or approved work areas. An area measuring at least 50 by 50 feet, located within the 200 feet by 200 feet work area where feasible, will be used for a crane pad. Crane pads will be used for the conventional installation of structures.

**TABLE 1a**  
Segment 11C Transmission Line Structure Demolition Details<sup>1</sup>

Circuit Name	Structure/Const Number	Removal or Modification	Inside ANF, Outside ANF, or In-holding	Helicopter Removal
Eagle Rock - Pardee	M29-T2	Remove	ANF	--
Eagle Rock - Pardee	M29-T3	Remove	ANF	--
Eagle Rock - Pardee	M29-T4	Remove	ANF	--
Eagle Rock - Pardee	M30-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M30-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M30-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M30-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M31-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M31-T2	Remove	ANF	--
Eagle Rock - Pardee	M31-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M31-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M32-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M32-T2	Remove	ANF	--
Eagle Rock - Pardee	M33-T1	Remove	ANF	--

**TABLE 1a**  
Segment 11C Transmission Line Structure Demolition Details<sup>1</sup>

<b>Circuit Name</b>	<b>Structure/Const Number</b>	<b>Removal or Modification</b>	<b>Inside ANF, Outside ANF, or In-holding</b>	<b>Helicopter Removal</b>
Eagle Rock - Pardee	M33-T2	Remove	ANF	--
Eagle Rock - Pardee	M33-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M33-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M34-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M34-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M34-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M34-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M34-T5	Remove	ANF	--
Eagle Rock - Pardee	M35-T1	Remove	ANF	--
Eagle Rock - Pardee	M35-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M35-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M35-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M35-T5	Remove	ANF	--
Eagle Rock - Pardee	M36-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M36-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M37-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M37-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M37-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M37-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M38-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M38-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M38-T3	Remove	ANF	--
Eagle Rock - Pardee	M38-T4	Remove	ANF	--
Eagle Rock - Pardee	M39-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M39-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M39-T3	Remove	ANF	Yes
Eagle Rock - Pardee	M39-T4	Remove	ANF	Yes
Eagle Rock - Pardee	M40-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M40-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M41-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M41-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M41-T3	Remove	ANF	--
Eagle Rock - Pardee	M42-T1	Remove	ANF	Yes

**TABLE 1a**  
Segment 11C Transmission Line Structure Demolition Details<sup>1</sup>

<b>Circuit Name</b>	<b>Structure/Const Number</b>	<b>Removal or Modification</b>	<b>Inside ANF, Outside ANF, or In-holding</b>	<b>Helicopter Removal</b>
Eagle Rock - Pardee	M43-T1	Remove	ANF	Yes
Eagle Rock - Pardee	M43-T2	Remove	ANF	Yes
Eagle Rock - Pardee	M43-T3	Remove	Outside ANF	--
Pardee - Vincent	M29-T1	Remove	ANF	--
Pardee - Vincent	M29-T2	Remove	Inholding	--
Pardee - Vincent	M29-T3	Remove	ANF	--
Pardee - Vincent	M29-T4	Remove	ANF	--
Pardee - Vincent	M30-T1	Remove	ANF	--
Pardee - Vincent	M30-T2	Remove	ANF	--
Pardee - Vincent	M30-T3	Remove	ANF	--
Pardee - Vincent	M30-T4	Remove	ANF	--
Pardee - Vincent	M31-T1	Remove	ANF	--
Pardee - Vincent	M31-T2	Remove	ANF	--
Pardee - Vincent	M31-T3	Remove	Outside ANF	--
Pardee - Vincent	M31-T4	Remove	Outside ANF	--
Pardee - Vincent	M31-T5	Remove	Outside ANF	--
Pardee - Vincent	M32-T1	Remove	Outside ANF	--
Pardee - Vincent	M32-T2	Remove	Outside ANF	--
Pardee - Vincent	M32-T3	Remove	Outside ANF	--
Former Antelope - Eagle Rock	M15-T2	Remove	ANF	--
Former Antelope - Eagle Rock	M16-T2	Remove	ANF	--
Former Antelope - Eagle Rock	M17-T3	Remove	Outside ANF	--
Former Saugus - Vincent	M30-T4	Remove	ANF	--
Former Saugus - Vincent	M30-T3	Remove	ANF	--
Former Antelope - Eagle Rock	M15-T1A	Modify	ANF	--
Pardee - Vincent	M28-T5	Modify	ANF	--
Eagle Rock - Pardee	M29-T1	Modify	ANF	--
former Saugus - Vincent	M29-T1	Modify	ANF	--
Mesa – Vincent, Santa Clara - Vincent	M32-T4	Modify	Outside ANF	--
Mesa - Vincent	M18-T2	Modify	Outside ANF	--

Notes:  
ANF – Angeles National Forest

<sup>1</sup> Information is subject to final engineering



Table 1b provides a detailed list of each structure to be constructed, which circuit the structure is located on, the type of structure, structure height and treatment type, whether the structure is located inside or outside the ANF or within an in-holding, and whether the structure is currently planned to be constructed by helicopter. Note that there may be changes to the construction methods based on final engineering.

**TABLE 1b**  
Segment 11C Transmission Line Structure Construction Details<sup>1</sup>

<b>Circuit Name</b>	<b>Structure/ Const Number</b>	<b>Structure Type</b>	<b>Structure Height</b>	<b>Structure Treatment Type</b>	<b>Inside ANF, Outside ANF, or In-holding</b>	<b>Helicopter Construction</b>
Mesa-Vincent No. 2	Const 0	SC TSP	112	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 1	DC LST	257	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 2	Delta Tower	199	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 3	Delta Tower	187	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 4	Delta Tower	187	LDG	Outside ANF	--
Pardee-Vincent No. 2	M17-T3X	SC LST	100	-	Outside ANF	--
Mesa-Vincent No. 2	Const 5	Delta Tower	253	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 6	Delta Tower	160	LDG	Outside ANF	--
Mesa-Vincent No. 2	Const 7	Delta Tower	150	MG	ANF	--
Mesa-Vincent No. 2	Const 8	Delta Tower	156	MG	ANF	--
Mesa-Vincent No. 2/ Pardee-Vincent No. 1	Const 9	DC LST	185	MG	ANF	--
Pardee-Vincent No. 1	M30-T3	SC LST	96	MG	ANF	--
Mesa-Vincent No. 2	Const 10	Delta Tower	203	MG	ANF	--
Pardee-Vincent No. 2	M16-T2X	SC LST	100	-	ANF	--
Mesa-Vincent No. 2	Const 11	SC H- Frame	71	MG	ANF	--
Pardee-Vincent No. 1	Const 70	SC LST	94	MG	ANF	--
Mesa-Vincent No. 2	Const 11A	SC H- Frame	100	MG	ANF	--
Mesa-Vincent No. 2	Const 12	Delta Tower	178	MG	ANF	--
Mesa-Vincent No. 2	Const 13	Delta Tower	153	LDG	ANF	--
Mesa-Vincent No. 2	Const 14	Delta	249	LDG	ANF	--

**TABLE 1b**  
Segment 11C Transmission Line Structure Construction Details<sup>1</sup>

Circuit Name	Structure/ Const Number	Structure Type	Structure Height	Structure Treatment Type	Inside ANF, Outside ANF, or In-holding	Helicopter Construction
		Tower				
Pardee-Vincent No. 2	M15-T2X	SC LST	106	-	ANF	--
Mesa-Vincent No. 2	Const 15	Delta Tower	265	MG	In Holding	--
Mesa-Vincent No. 2	Const 16	Delta Tower	201	MG	ANF	--
Pardee-Vincent No. 1	Const 71	SC LST	94	-	ANF	--
Mesa-Vincent No. 2	Const 17	Delta Tower	197	MG	ANF	--
Mesa-Vincent No. 2	Const 18	SC LST	146	LDG	ANF	--
Mesa-Vincent No. 2	Const 19	SC LST	128	DG	ANF	--
Mesa-Vincent No. 2	Const 20	SC LST	160	DG	ANF	Yes
Mesa-Vincent No. 2	Const 21	SC LST	98	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 22	SC LST	104	DG	ANF	Yes
Mesa-Vincent No. 2	Const 23	SC LST	97	DG	ANF	Yes
Mesa-Vincent No. 2	Const 24	SC LST	124	MG	ANF	Yes
Mesa-Vincent No. 2	Const 25	SC LST	122	LDG	ANF	--
Mesa-Vincent No. 2	Const 26	SC LST	179	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 27	SC LST	118	LDG	ANF	--
Mesa-Vincent No. 2	Const 28	SC LST	121	MG	ANF	Yes
Mesa-Vincent No. 2	Const 29	SC LST	122	DG	ANF	Yes
Mesa-Vincent No. 2	Const 30	SC LST	149	LDG	ANF	--
Mesa-Vincent No. 2	Const 31	SC LST	128	LDG	ANF	--
Mesa-Vincent No. 2	Const 32	SC LST	107	DG	ANF	--
Mesa-Vincent No. 2	Const 33	SC LST	121	DG	ANF	Yes
Mesa-Vincent No. 2	Const 34	SC LST	106	DG	ANF	Yes
Mesa-Vincent No. 2	Const 35	SC LST	170	DG	ANF	Yes
Mesa-Vincent No. 2	Const 36	SC LST	117	DG	ANF	Yes
Mesa-Vincent No. 2	Const 37	SC LST	146	DG	ANF	Yes
Mesa-Vincent No. 2	Const 38	SC LST	106	DG	ANF	Yes
Mesa-Vincent No. 2	Const 39	SC LST	106	DG	ANF	--
Mesa-Vincent No. 2	Const 40	SC LST	122	DG	ANF	--
Mesa-Vincent No. 2	Const 41	SC LST	116	MG	ANF	Yes
Mesa-Vincent No. 2	Const 42	SC LST	98	MG	ANF	Yes

**TABLE 1b**  
Segment 11C Transmission Line Structure Construction Details<sup>1</sup>

<b>Circuit Name</b>	<b>Structure/ Const Number</b>	<b>Structure Type</b>	<b>Structure Height</b>	<b>Structure Treatment Type</b>	<b>Inside ANF, Outside ANF, or In-holding</b>	<b>Helicopter Construction</b>
Mesa-Vincent No. 2	Const 43	SC LST	100	MG	ANF	Yes
Mesa-Vincent No. 2	Const 44	SC LST	119	DG	ANF	--
Mesa-Vincent No. 2	Const 45	SC LST	176	DG	ANF	Yes
Mesa-Vincent No. 2	Const 46	SC LST	116	DG	ANF	Yes
Mesa-Vincent No. 2	Const 47	SC LST	103	DG	ANF	Yes
Mesa-Vincent No. 2	Const 48	SC LST	103	DG	ANF	Yes
Mesa-Vincent No. 2	Const 49	SC LST	106	DG	ANF	Yes
Mesa-Vincent No. 2	Const 50	SC LST	100	DG	ANF	Yes
Mesa-Vincent No. 2	Const 51	SC LST	100	DG	ANF	Yes
Mesa-Vincent No. 2	Const 52	SC LST	119	DG	ANF	Yes
Mesa-Vincent No. 2	Const 53	SC LST	125	LDG	ANF	--
Mesa-Vincent No. 2	Const 54	SC LST	121	MG	ANF	--
Mesa-Vincent No. 2	Const 55	SC LST	121	MG	ANF	Yes
Mesa-Vincent No. 2	Const 56	SC LST	117	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 57	SC LST	122	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 58	SC LST	113	MG	ANF	Yes
Mesa-Vincent No. 2	Const 59	SC LST	122	DG	ANF	Yes
Mesa-Vincent No. 2	Const 60	SC LST	140	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 61	SC LST	116	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 62	SC LST	107	MG	ANF	Yes
Mesa-Vincent No. 2	Const 63	SC LST	119	DG	ANF	--
Mesa-Vincent No. 2	Const 64	SC LST	128	DG	ANF	Yes
Mesa-Vincent No. 2	Const 65	SC LST	122	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 66	SC LST	167	LDG	ANF	Yes
Mesa-Vincent No. 2	Const 67	SC LST	125	MG	In-holding	--
Mesa-Vincent No. 2	Const 68	DC TSP	140	--	In-holding	--

Notes:

ANF – Angeles National Forest

DC – double-circuit

DG – dark galvanizing

LDG – light dulled galvanizing

LST – lattice steel tower

**TABLE 1b**  
Segment 11C Transmission Line Structure Construction Details<sup>1</sup>

Circuit Name	Structure/ Const Number	Structure Type	Structure Height	Structure Treatment Type	Inside ANF, Outside ANF, or In-holding	Helicopter Construction
MG – medium galvanizing						
SC - single-circuit						
TSP – tubular steel pole						

<sup>1</sup> Information is subject to final engineering

### Helicopter Construction

For Segment 11C, approximately 36 structures will be constructed by helicopter methods, as identified in Table 1b. The number of structures built by helicopter may change based on final engineering. The Segment 11C structures to be constructed by helicopter methods occur on the Mesa-Vincent No. 2 220 kV (built to 500 kV specifications). Helicopters will also be used generally in support of construction activities across the entire length of Segment 11C, including but not limited to wire removal, wire stringing, and inspection activities. Helicopter construction requires 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 to and from these yards and transport the assembled sections of the LST to the structure sites. Construction activities within the HAYs will generally 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 installation, 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 expected to be used for this NTPR are listed below.

- Aliso Canyon
- Mount Gleason Road Turnout
- Camp 16
- Mount Gleason
- Forest Highway Turnout
- Maple Canyon
- Pasadena/La Cañada-Flintridge HAY

Segment 6 HAYs may also be used, as needed. Activities associated with HAY development include vegetation clearing and 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 BMPs.

**Helicopter Support Yards.** Because of the limited fuel supply that helicopters are able to carry, helicopter support yards (HSYs) generally aid transmission line construction by providing fuel and support in close

proximity to the construction sites. Several HSYs have been identified for Segment 11C. Where feasible, the HSYs have been placed in project work areas such as pull sites, roads, or tower work areas in order to minimize project impacts to lands. The dimensions and locations of the HSYs will vary depending on the size of the helicopter and activities taking place. Although the FEIR/FEIS indicates a minimum size of 100 ft. by 100 ft., the HSYs typically do not exceed that size. The access roads to the four HSYs outside of ANF lands are unpaved and maintenance will be required to keep them passable for construction equipment. The two HSYs to the northwest of Construct 3 are in previously disturbed areas adjacent to an access road. The HSY to the east of Construct 3 is in an open area within the right-of-way that will be used for a pull site. The fourth HSY is located in an open area between two roads that will be used for a pull site between Constructs 4 and 5. Best Management Practices will be implemented for fueling activities.

**Helicopter Landing Zones.** Helicopter landing zones (LZs) are required for various purposes, including unloading personnel, tools, and equipment for structure sites. Some of the LZs 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. 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 11C. One or more LZs will be maintained following construction for use during operations and maintenance activities.

### **Telecommunications**

At the south end of the Mesa – Vincent No. 2 220 kV T/L, approximately 400 linear feet of communications fiber will be installed underground from Construct 67 through a conduit to an underground duct bank at the Gould Substation fence line. The trench will be a minimum of 30 inches deep by approximately 2 feet wide. Precast manholes will also be installed near Structure 67 and Gould Substation fence line. A work area of 20 feet is provided each side of the trench, encompassing the manholes. A backhoe, excavator, or trencher (or equivalent) will be used to excavate the trench.

- **Biological Resources:** SCE submitted a biological review with the NTPR by ICF International dated July 2013, titled *SCE Tehachapi Renewable Transmission Project Component – Segment 11C Transmission Line – Vincent Substation to Gould Substation 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 gentilis*), southwestern willow flycatcher (*Empidonax traillii extimus*), southwestern pond turtle (*Actinemys marmorata pallida*), two-striped garter snake (*Thamnophis hammondi*), and south coast garter snake (*Thamnophis sirtalis* spp.) along the Project Component, and adjacent to Segments 5 and 6, and the Vincent Substation (Segment 9). Focused surveys for 2010 and 2011 along the Project Component were conducted for special-status plants, regulated trees, burrowing owl, spotted owl, arroyo toad, and California red-legged frog, southwestern willow flycatcher, southwestern pond turtle, two-striped garter snake, and south coast garter snake. Focused habitat assessment surveys for potential colonial bat roosts along the Project Component were also conducted in 2011. No focused surveys were conducted along the Project Component in 2012. Focused surveys for 2013 include special-status plants, regulated trees, arroyo toad, California red-legged frog, and coastal California gnatcatcher. Focused preconstruction surveys for bats will be conducted prior to the start of construction. 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 11C identified 32 vegetation communities within the BSA, nine 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 arroyo willow riparian forest, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern sycamore alder riparian woodland, and southern willow scrub (ICF 2011hk). Twelve special-status plant species were observed within the BSA during special-status plant surveys: San Gabriel manzanita (*Arctostaphylos gabrielensis*), Plummer's mariposa lily (*Calochortus plummerae*), Mt. Gleason Indian paintbrush (*Castilleja gleasonii*), San Gabriel mountains sunflower (*Hulsea vertita* ssp. *gabrielensis*), California walnut (*Juglans californica*), fragrant pitcher sage (*Lepechinia fragrans*), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*), short-joint beavertail (*Opuntia basilaris* var. *brachyclada*), San Gabriel oak (*Quercus durata* var. *gabrielensis*), and Lemmon's syntrichopappus (*Syntrichopappus lemmonii*) (AMEC 2007a, 2009w; ICF 2010au, 2011hk; FRED Survey Parent 000024). Twenty-four regulated tree species are located within the BSA. Biological monitoring will assist in avoiding impacts on special-status plant and tree species to the greatest extent feasible.

### ***Special-Status Wildlife Species***

California Spotted Owl – Biologists conducted California spotted owl habitat assessment and vegetation mapping in 2006 and 2007, and California 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. From 2007 through 2009, two of 14 stations along Segment 11 had owls. Of those two stations, one was confirmed as a “pair” (SO11-10) and the other was of “unknown status” (AMEC 2009t). A habitat assessment done for the area in 2010 determined that suitable habitat was no longer present due to the effects of the Station Fire in 2009. Because of the lack of suitable habitat, focused surveys were not conducted for Segment 11 in 2010 or 2011 (ICF and BonTerra 2010l, 2011g). In 2013, focused surveys were conducted at four calling stations (SO11-1, SO11-A1, SO11-A2, and SO11-A3) for Segment 11. The surveys were negative for California spotted owl (FRED Survey Parent 000021).

Burrowing Owl – Prior habitat assessment and focused surveys conducted consistent with the California Burrowing Owl Consortium's survey protocol (CBOC 1993) were conducted within the northern portion of the BSA for Segment 11 and Vincent Substation. In 2007, an occupied burrowing owl burrow was incidentally observed within the BSA near Segment 6 Tower 11; however, it was not seen during focused burrowing owl surveys (AMEC 2008b). The 2007 burrowing owl surveys identified potential burrowing owl features within the BSA near Segment 6 Tower 11 (AMEC 2008b). 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 observed south of Vincent Substation in 2009 (AMEC 2009z). 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 at 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), and burrowing owl focused surveys were not conducted within the BSA in 2011, 2012, or 2013.

Northern Goshawk – A northern goshawk territory survey was conducted in 2009 within the BSA. No evidence of goshawks was detected during the surveys (Bloom 2009a).

South Coast Garter Snake and Two-Striped Garter Snake – The 2009 south coast garter snake and two-striped garter snake focused surveys were conducted for Segment 11 in Aliso Canyon, the Big Tujunga 3N27 Crossing, and Kentucky Wash. The surveys were positive for two-striped garter snake in Aliso

Canyon and the Big Tujunga 3N27 Crossing (AMEC 2009s). Focused garter snake surveys were not conducted in Segment 11C in 2010 because two-striped garter snake is presumed present in Aliso Canyon and Big Tujunga 3N27 (ICF and BonTerra 2010i). Focused garter snake surveys were not conducted in 2011, 2012, or 2013. Two-striped garter snakes were incidentally observed during other focused surveys.

Southwestern Pond Turtle – During 2009, southwestern pond turtle focused surveys in Segment 11C were conducted in Aliso Creek and Big Tujunga 3N27 Crossing. Southwestern pond turtles were observed at the Big Tujunga 3N27 crossing. No evidence of nesting was observed (AMEC 2009v). The 2010 southwestern pond turtle surveys were conducted in Aliso Canyon, Aliso HAY (ICF and BonTerra 2010h). Southwestern pond turtles were not detected in this survey area and were not incidentally observed within the BSA. Southwestern pond turtle focused surveys were not conducted within the BSA in 2011, 2012, or 2013.

Bats – Preconstruction focused habitat assessment surveys for bats completed in 2011 within the BSA identified 65 potential bat roosting features (FRED Haibat Event 000135, 000183, 000185 – 000188, 000191 – 000237, 001148 – 001154, 001334, 001427, 001428, 001463, 001464, 001489). Features include cavities and crevices within rock outcrops or trees and exfoliating bark or bark fissures (ICF 2011bl, ICF and BonTerra 2011d). Focused preconstruction surveys for bats will be conducted prior to the start of construction.

Raptors and Nesting Birds – The Project Component provides potential nesting habitat for bird species that are protected under the Migratory Bird Treaty Act and the California Fish and Game Code, including raptors. Preconstruction surveys will be conducted prior to any project-related activities to ensure impacts do not occur on nesting birds or raptors.

### ***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, focused arroyo toad surveys were conducted at the Kentucky Wash site (Segment 6 MM 2.2 – 2.6); no arroyo toads were detected at this site (AMEC 2008c). In 2009, focused arroyo toad surveys were repeated at the Kentucky Wash site; no arroyo toads were detected (AMEC 2009y). In 2010, focused arroyo toad surveys conducted for Segment 11 at Aliso Canyon, Aliso HAY, and Kentucky Wash Survey Areas were negative for arroyo toad (ICF and BonTerra 2010k). No incidental observations of arroyo toad were made during other survey efforts. Two-striped garter snake was observed at Aliso Canyon, a silvery legless lizard (*Anniella pulchra pulchra*) was observed at Aliso HAY, and a coast horned lizard (*Phrynosoma coronatum*) was observed at Kentucky Wash (ICF and BonTerra 2010k). In 2011, focused arroyo toad surveys conducted for Segment 11 at Aliso Canyon and Aliso HAY Survey Areas were negative for arroyo toad. California red-legged frog and two-striped garter snake were observed in Aliso Canyon, and two-striped garter snake was observed at Aliso HAY (ICF and BonTerra 2011c). No incidental observations of arroyo toad were made during other survey efforts. In 2013, focused arroyo toad surveys conducted for Segment 11 and within the Segment 11 BSA at Aliso Canyon, Forest Road 4N24 (near Segment 11 Construct 11A), Aliso HAY, and Kentucky Wash were negative for arroyo toad (FRED Survey Parent 000018). Coast horned lizard, loggerhead shrike (*Lanius ludovicianus*), California red-legged frog, two-striped garter snake, and Cooper's hawk (*Accipiter cooperii*) were incidentally observed during the 2013 focused surveys.

California Red-legged Frog – In 2010, California red-legged frog focused surveys conducted in the Aliso Canyon and Aliso HAY Survey Areas were positive for California red-legged frog in the Aliso Canyon Survey Area (ICF and BonTerra 2010j). Two-striped garter snake was observed in both the Aliso Canyon and Aliso HAY Survey Areas, and silvery legless lizard was observed in the Aliso HAY Survey Area (ICF and BonTerra 2010j). California red-legged frog was incidentally observed during focused surveys for other species in Aliso Canyon (ICF and BonTerra 2010k). In 2011, California red-legged frog focused surveys conducted in the Aliso Canyon and Aliso HAY Survey Areas were positive for California red-legged frog in

the Aliso Canyon Survey Area (ICF and BonTerra 2011f). Two-striped garter snake was observed in both the Aliso Canyon and Aliso HAY Survey Areas (ICF and BonTerra 2011f). California red-legged frog was incidentally observed during focused surveys for other species in Aliso Canyon (ICF and BonTerra 2011c). In 2013, focused California red-legged frog surveys were conducted for Segment 11 and within the Segment 11 BSA at Aliso Canyon, Forest Road 4N24 (near Segment 11 Construct 11A), Aliso HAY, and Kentucky Wash. Surveys were positive in the Aliso Canyon Survey Area (FRED Survey Parent 000019). Two-striped garter snake was incidentally observed in Aliso Canyon and Aliso HAY Survey Areas, and California red-legged frog was incidentally observed during focused surveys for other species in Aliso Canyon (FRED Survey Parent 000018).

Riparian Birds – In 2007, riparian bird focused surveys in Segment 11 were conducted at Aliso Canyon, and were negative for special-status riparian birds (AMEC 2007d). In 2009, riparian bird focused surveys in Segment 11 were conducted at North Fork Mill Creek and Lower Fall Creek (Fall Creek and Upper Big Tujunga). Migrating willow flycatcher (*Empidonax traillii*) were observed, but special-status riparian birds including least Bell's vireo (*Vireo bellii pusillus*) and southwestern willow flycatchers were not observed. In 2010, southwestern willow flycatcher focused surveys for Segment 11 conducted in the Aliso Creek Survey Area were negative (ICF 2010di). Coast horned lizard, olive-sided flycatcher (*Contopus cooperi*), and loggerhead shrike were incidentally observed (ICF 2010di). Southwestern flycatcher was not incidentally observed during any other focused surveys. In 2011, southwestern willow flycatcher focused surveys for Segment 11 conducted in the Aliso Creek Survey Area identified a willow flycatcher that could not be confirmed to be the southwestern subspecies (ICF 2011gd). Loggerhead shrike was incidentally observed (ICF 2011gd). Southwestern willow flycatcher was not incidentally observed during any other focused surveys.

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 257 jurisdictional water features are expected to be impacted by the Project Component. These drainage features are jurisdictional waters of the State, waters of the U.S., and state streambeds. Therefore, impacts on these features will require the issuance of the following regulatory permits: 401 Water Quality Certification by the State Water Resources Control Board (SWRCB), 404 Authorization by the U.S. Army Corps of Engineers (USACE), and a Streambed Alteration Agreement (1602 Permit) by the California Department of Fish and Wildlife (CDFW). Permit applications included avoidance and minimization measures to reduce impacts on jurisdictional waters, water quality, and biological resources. In addition, a compensatory mitigation requirement has been calculated for proposed impacts, and a conceptual mitigation proposal was prepared and presented to the agencies for approval. All impacts on jurisdictional features that occur within U.S. Forest Service (USFS) lands will be mitigated consistent with the Habitat Mitigation and Monitoring Plan Private Lands Segments 6 and 11 prepared by SCE (ICF 2013c), and the Habitat Restoration and Revegetation Plan prepared by the Forest Service (USFS 2013a). Mitigation for impacts on jurisdictional features on Private Lands will be consistent with the Habitat Mitigation and Monitoring Plan Private Lands Segments 6 and 11 (ICF 2013c). The majority of the jurisdictional features mapped will either be avoided or will only be temporarily impacted. The majority of the impacts on these jurisdictional features will be from road widening, structure work areas, and wire setup sites. Temporary impacts for the Project Component include 1.18 acre (12, 511 linear feet) of USACE/SWRCB jurisdiction and 2.03 acres (12,476 linear feet) of CDFW jurisdiction. There will be



permanent impacts 0.14 acre (3,611 linear feet) of USACE/RWQCB jurisdiction and 0.45 acre (3,646 linear feet) of CDFW jurisdiction.

### ***Riparian Conservation Areas***

A Riparian Conservation Area (RCA) is defined in the Forest Plan as “an area delineated next to water features requiring special management practices to maintain and/or improve watershed and riparian-dependent resource conditions” (USFS 2005). The USFS uses the Five-Step Project Screening Process to determine which habitats within the ANF meet the specific biological and hydrological criteria necessary to be considered RCAs. RCAs may include both terrestrial and aquatic features, including areas within and surrounding perennial, intermittent, and ephemeral streams, as well as meadows, lakes, reservoirs, ponds, wetlands, vernal pools, seeps, springs, and other bodies of water. Surveys were conducted by Aspen and USFS biologists across the project area within the ANF in the summer of 2008 to identify RCAs in the field and gather data at each RCA. The results of this survey are included in the RCA Report (Aspen 2009f).

- **Cultural and Paleontological Resources:** SCE submitted cultural and paleontological information with the NTPR for Segment 11C Transmission Line (T/L) from the Vincent Substation to the Gould Substation. Pacific Legacy completed the initial cultural resources surveys and records search for the TRTP in 2007 (Pacific Legacy 2007), which identified several resources in the vicinity of Segment 11C. In addition, two supplemental cultural resources surveys took place titled *Supplemental Survey, Segment 11, TRTP, Gould Substation* (Belcourt 2011) and *Supplemental Archaeological Survey Report, TRTP, Segment 11C, Angeles National Forest, Los Angeles County, California* (Holm and Jackson 2013). These efforts identify twelve (12) cultural resources along or in the vicinity of the Segment, eight (8) of which will be impacted/affected by the construction of Segment 11C of the TRTP. The Construction Phase Management Plan (CPMP), Cultural GIS files for TRTP, supplemental survey reports, as well as evaluations and treatment plan (Holm and Jackson 2013, Pacific Legacy 2013, Urbana Preservation & Planning 2013), identify all known cultural resources located along Segment 11C. In addition, these documents contain the most recent management measures pertaining to all cultural resources within and in the vicinity of the segment. Mitigation measures to address the impacts/effects on these resources are required and will be implemented prior and during construction.

Per the final Paleontological Resources Management Plan (PRMP) that was approved on August 22, 2010, paleontological monitoring is necessary only during ground disturbance in native soils considered sensitive for harboring paleontological resources. The geology of the area that encompasses Segment 11C is characterized by igneous rocks which have a very low sensitivity for yielding paleontological resources (PFYC = 1). No paleontological resources monitoring is required during construction activities in support of Segment 11C.

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

- **CPUC NTP #39 authorizes construction of Segment 11C on non-ANF lands only.** SCE shall coordinate with the Forest Service regarding any separate confirmation required for Segment 11C construction on ANF lands and copy the CPUC on any correspondence.
- On non-ANF lands, Segment 11C FAA lighting is required at Towers (Construct) 1, 2, 5, and 15 (SEIR/S Table 2.3-4) and marker balls are required on the conductor spans between Towers 1-2, 3-4, 5-6, 6-7, 14-15, 15-16, and 66-67 (SEIR/S Table 2.3-1). No stringing of the subject marker ball towers shall occur until CPUC approves the FAA Petition for Modification (PFM) of Decision 09-12-044 regarding FAA lighting and marker balls. In addition, the construction of towers requiring FAA lighting shall be restricted to 20 feet until CPUC approval is granted for the PFM.

- 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.
- 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; buffers shall be consistent with the TRTP Nesting Bird Management Plan. 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 for non-listed birds may be adjusted with the approval of CPUC, in consultation with CDFW and USFWS as appropriate (per direction from John Boccio, CPUC, 3/25/2013). If special-status plant or animal species or bird nests are observed within the project area, CDFW 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.
- All federal, State, and local agency permits and amendments shall be submitted to the CPUC prior to work occurring in areas covered by the applicable jurisdiction.
- 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.
- The use of *Sporax* shall be used to treat cut tree stumps both on and off U.S. Forest Service lands in accordance with Mitigation Measure B-1c.
- Refueling and fueling locations shall be located away from existing drainages, water features, or environmentally sensitive areas in accordance with with agency permits and the approved SWPPP. If construction debris or spills enter into drainage/water features or environmentally sensitive areas, the jurisdictional agencies and the CPUC EM shall be notified immediately.
- No ground disturbing work shall occur in areas affected by outstanding cultural and paleontological report reviews.

- 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.
- No helicopter flights shall occur over the Acton Residential Area (ARA) prior to 7:00 a.m. Helicopter flights within the ARA shall be limited to work required within the TRTP right-of-way.
- 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 'Jason Coontz', written over a horizontal line.

Jason Coontz  
CPUC Environmental Project Manager

cc: V. Strong, Aspen