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## PROJECT MEMORANDUM

### ANTELOPE TRANSMISSION PROJECT, SEGMENTS 1, 2 AND 3A

**To:** John Boccio, Project Manager, CPUC  
Justin Seastrand, Project Manager, ANF  
**From:** Vida Strong, Aspen Project Manager  
**Date:** November 9, 2009  
**Subject:** Weekly Reports 93 and 94; October 18 to October 31, 2009

## INTRODUCTION

This report provides a summary of the construction and compliance activities associated with the SCE Antelope-Pardee 500 kV Transmission Project, Segment 1, and SCE Antelope Transmission Project, Segments 2 and 3A, including the Windhub Substation. A summary of the Notices to Proceed with construction and Variance Request activity are also provided (see Tables 1 and 2, respectively, near the end of this report). Finally, a summary of Temporary Extra Workspace and non-compliance activity are provided in Tables 3 and 4, respectively.

### Segment 1: Antelope-Pardee

The Antelope-Pardee Project, Segment 1, is comprised of three sections:

- Section 1: Pardee Substation to the ANF boundary.
- Section 2: ANF
- Section 3: ANF Boundary to the Antelope Substation

During the subject period, construction activity continued under Notice to Proceed (NTP) #7 for construction of Section 1 and NTPs #2 and #11 for construction of Section 3, including the Antelope Substation. In addition, work continued under NTP #18 and the Special Use Permit (SUP) for construction of Section 2, Angeles National Forest. Equipment, materials, and office trailers are being staged in approved construction yards.

## SECTION 1

**CPUC/Aspen Environmental Monitors (EM):** Jenny Slaughter and Arturo Ruelas.

### Summary of Activity:

The Shoofly (temporary bypass of Santa Clara-Vincent line) of the Antelope Pardee Transmission Line Project authorized under NTP #5 was energized between May 2008 and March 2009, and has been removed and Shoofly roadways have been recontoured. NTP #7 for Section 1 of Segment 1 was issued by the CPUC on May 8, 2008. Construction activities approved under NTP #7 included the removal of the Saugus-Del Sur 66 kV line and towers, the construction of the new 500 kV double circuit lattice towers, and the removal of the existing 220 kV Santa Clara-Vincent line and towers. The lattice tower structures originally supporting the Santa Clara-Vincent 220 kV line have been replaced with the 500 kV double-circuit towers to accommodate both the Santa Clara-Vincent and Antelope Pardee lines between the Pardee Substation and Structure 25 in Santa Clarita. Construction activities under NTP #7 during the subject period consisted of the following activities.

1. Road recontouring of the Section 1 access roads has been on hold while crews complete work on the ANF. Additional compaction of the approved permanent roadways might be required to comply with Los Angeles County requirements of wet weather erosion control plans for the area.
2. A site visit with L.A. County was conducted on October 26. County recommendations included jute netting on exposed slopes and recontoured roads, and reseeding in a timely manner to prevent erosion.



3. The CPUC EM conducted a tour of Section 1 along with the Burns and McDonnell and PAR Environmental Leads to begin a punch list of items still needed. The results are summarized below:
  - Excessive weeds were noted in areas of temporary disturbance (see Figure 1).
  - Road to removed 220 kV tower adjacent to Tower 3 should be restored.
  - Road to Tower 5 needs to be completed.
  - Road to Tower 9 is washing out in two locations. Drains or berms should be installed.
  - Road to wreck-out tower near Tower 10 should be restored.
  - Construction debris left at wreck-out near Tower 11.
  - Anchors left at Shoofly 13 in Haskell Canyon.
4. 66 kV foundations were checked and removed by PAR in Section 1.
5. Revegetation of the temporary disturbance areas is planned for November.

**Environmental Compliance:**

No Non-Compliance Reports or Project Memoranda were issued during the subject week for Segment 1 construction activities. Non-Compliance activities for the project to date are summarized in Table 4.

**Agency Representatives:**

L.A. County

**SECTION 2, ANF & ADJACENT YARDS**

**ANF Representatives:** Mike Roberts, Katie Vin Zant

**CPUC/Aspen Environmental Monitors (EM):** Jenny Slaughter and Arturo Ruelas

**Summary of Activity:**

On October 23, 2008, the Angeles National Forest issued a Special Use Permit for construction of the new 500 kV towers and the removal of the existing 66 kV towers on National Forest System lands; a Notice to Proceed (NTP) from the CPUC was issued on October 27, 2008. The 66 kV conductor removal has been completed and was permitted by a separate SUP issued by the ANF and NTPs issued by CPUC.

Construction of Section 2 on the ANF began on November 12, 2008. PAL levels for the subject period are summarized below:

<b>Date</b>	<b>Project Activity Level (PAL)</b>	<b>Activity Allowed/Conducted</b>
Sunday, October 18	NO PAL	No Sunday work scheduled
Monday, October 19	C	Work is allowed
Tuesday, October 20	C	Work is allowed
Wednesday, October 21	D	Work is allowed
Thursday, October 22	D	Work is allowed
Friday, October 23	D	Work is allowed
Saturday, October 24	D	Work is allowed
Sunday, October 25	n/a	No Sunday work scheduled
Monday, October 26	EV	Work is allowed
Tuesday, October 27	C	Work is allowed
Wednesday, October 28	Red Flag	Work is allowed*
Thursday, October 29	EV	Work is allowed
Friday, October 30	EV	Work is allowed
Saturday, October 31	EV	Work is allowed

\*Only road recontouring work was conditionally allowed during a Red Flag Project Activity Level (PAL)

Construction activities during the subject period consisted of the following:

1. PAR crews during the subject period finished removing the 66 kV lattice tower footings by excavating and cutting those two feet below the surface as required in the Special Use Permit (SUP) approved by the ANF. The 66 kV footings were originally removed last year; however, footing removal was not conducted in accordance with the ANF SUP which required removal of the footings to two feet below grade.
2. Project biologists continued removing all the red/white flagging and micro-trash left on the ANF.
3. The locations of off road vehicle barriers have been staked at the temporary spur roads and wire sites.
4. Slope stabilization work proposed at Tower 45 was approved by the ANF. Borings for the stabilization in the area of the slide were conducted.

### **Environmental Compliance**

1. The Oak Tree mitigation tables were submitted for all of Segment 1. The report includes mitigation proposed for damaged trees during construction.
2. A final site inspection of all tower areas will take place by ANF and/or the CPUC EM.
3. Revegetation of the temporary disturbance areas in the ANF is planned for November.
4. Operation and maintenance of the Section 2 line will be conducted in accordance with the ANF approved Operation & Maintenance Plan. This Plan is currently under ANF review.
5. All vehicles and equipment are being washed before entering ANF lands at the wheel wash station. All vehicles and tracked equipment must be washed prior to entering the ANF in order to minimize the spreading of invasive plant species in the recently disturbed soils.

No Non-Compliance Reports or Project Memoranda were issued during the subject week for Segment 1 construction activities. Non-Compliance activities for the project to date are summarized in Table 4.

### **Agency Representatives during Construction (other than CPUC EMs):**

ANF representatives Katie Vin Zant and Mike Roberts

### **SECTION 3, ANTELOPE SUBSTATION, & ADJACENT YARDS**

**CPUC/Aspen Environmental Monitor (EM):** Jenny Slaughter and Arturo Ruelas.

#### **Summary of Activity:**

Section 3 includes the construction of the 500 kV towers, the dismantling of the Saugus–Del Sur 66 kV transmission line, the construction of the 12 kV distribution line, and the Antelope Substation expansion for the Antelope Pardee Project.

NTPs #10 (for the 12 kV component of Section 3 of Segment 1) and #11 (for the 500 kV tower constructions and dismantling of the 66 kV transmission line) were issued by the CPUC on June 25, 2008. In Section 3, a combination of single circuit lattice towers and tubular steel poles are used to support the new 500 kV line. Construction activities approved under NTP #2 for the Antelope Substation expansion work have been completed. Construction of the 12 kV distribution line as authorized under NTP #10 has been completed, and the line was energized on September 2, 2008.

Remaining construction activities under NTP #11 are noted below.

1. All towers in Section 3 have been assembled. Wire stringing, clipping in, sleeving, and sagging has been completed between Towers 89 and the Antelope Substation.

2. Recontouring of the access roads between Towers 89 and 92 is on hold pending L.A. County approval of an amended grading permit.
3. Restoration of the temporary disturbance areas is planned for November.

### **Environmental Compliance**

No Non-Compliance Reports or Project Memoranda were issued during the subject week for Segment 1 construction activities. Non-Compliance activities for the project to date are summarized in Table 4.

### **Agency Representatives during Construction (other than CPUC EMs):**

None

### **Segment 2: Antelope-Vincent**

#### **Summary of Activity:**

The Notice to Proceed for Segment 2 construction (NTP #14) was issued by the CPUC on September 30, 2008. Segment 2 involves the construction of a new 21.0-mile single-circuit 500 kV transmission line initially to be energized at 220 kV and 0.6 miles of a new 220 kV transmission line connecting SCE's Antelope Substation in the City of Lancaster to the Vincent Substation in incorporated Los Angeles County. Segment 2 also includes demolition and relocation of 4.4 miles of existing 66 kV sub-transmission line to accommodate construction of the new 500 kV transmission line in the right-of-way and modifications to the Vincent Substation.

1. On Friday, October 30<sup>th</sup>, a site visit of Segment 2 was conducted with SCE, Aspen, and PAR to discuss erosion control measures and recontouring concerns in some of the steep areas of Segment 2. The group visited areas where recontouring work had not yet occurred and areas that had been completed. Findings are summarized below:
  - At the access road to Tower 19, natural drainage had been cut off. BMPs were not sufficient and rip rap was needed at a road drain. Side cast material should be stabilized.
  - Excess soils and rock piled up along side the access road near Tower 39.
  - BMPs near the stream crossing at Tower 47 were not sufficient. Rolling dips or water bars were needed along both access roads leading toward the drainage. Side cast material should be stabilized.
  - Excess side cast along access road near Tower 48. Side cast material down slope from road has reached the stream channel and should be removed. Water bars needed along access road to prevent further erosion of this slope. Additional BMPs to be installed (see Figure 2).
2. PAR crews completed wire stringing between Towers 79- 95.
3. PAR crews completed the installation of transposition towers at Tower 106.
4. Crews continued recontouring work between Towers 30 and 39, Sagebrush 211, and snub site 35.
5. Trenching of a fiber optic line between Towers 34 and 36 was completed in the north and middle hijack areas (see Figure 3). This activity will be repeated in the southern hijack (Towers 76-79).
6. Steel assembly continued at Tower 78.
7. Vegetation cut during initial grading activities was hauled offsite to an approved disposal facility.

### **Environmental Compliance:**

1. The CPUC EM was notified that a cultural resource monitor was not present on the first day of trenching activities near Tower 36. The Burns and McDonnell Environmental Lead was reminded that the area required monitoring as conditioned in the Segment 2 Cultural Resource Management Plan.

2. On October 21<sup>st</sup>, the CPUC EM learned that a new unanticipated cultural resource was identified in late-August in Segment 2. A Project Memorandum was issued documenting the untimely notification of the find to the CPUC and included the incident from the historic foundation damage in Segment 1 along with the information from #1 above.
3. As conditioned in the NTP, all sensitive resources are being flagged for avoidance and verified by the CPUC EM prior to construction.
4. Juniper and Joshua trees impacted by construction are being tracked by Burns and McDonnell environmental staff for future mitigation.
5. A slight adjustment in the wire sleeving site was needed during pulling operations near Tower 86. The shift was in-line with the right-of-way and had been previously surveyed for biological and cultural resources. The CPUC EM allowed this work to continue, but required that a Variance modification be submitted to document this change. This modification was submitted on November 6.

One Project Memoranda was issued on October 22 for Segment 2 construction activities. Non-Compliance activities for the project to date are summarized in Table 4.

**Agency Representatives during Construction (other than CPUC EMs):**

None

**Segment 3A: Antelope-Windhub**

The NTP for Segment 3A (NTP #17) was issued by the CPUC on October 22, 2008. Segment 3A involves the construction of a new 25.6-mile 500 kV transmission line initially energized at 220 kV connecting SCE's Antelope Substation in the City of Lancaster to the new Windhub Substation on Oak Creek Road in the Tehachapi area of Kern County. The NTP for the new Windhub Substation (NTP #19) was issued by the CPUC on December 1, 2008. Construction activities during the subject period are summarized below.

**Summary of Activity**

1. PAR crews continued assembly of lattice towers in Segment 3A.
2. PAR crews installed guard pole structures at six locations in preparation for wire pulling activities.
3. During the subject period, PAR crews conducted wire installation between Towers 101 and 97, near the Antelope Substation.
4. Tortoise proof fencing surrounding tower sites 1 and 7-14 is being regularly monitored for entrapped animals also crews expanded tortoise fencing at Tower 8 to include crane pad area.
5. CDFG and USFWS were consulted on the need for tortoise fencing surrounding wire stringing sites in Segment 3A. Both agencies agreed that fencing would not be required provided that tortoise monitors were on site during wire stringing activities.
6. Grading at the Windhub Substation site has been completed. Foundation work for the control room and rack assembly continued.

**Environmental Compliance:**

1. Trash was observed within and outside of the Ave J and Ave I yard. SCE's Environmental Leads were notified of this situation. The trash has been removed; however, crews were reminded to keep the trash contained.

2. In response to the sightings of desert tortoises in the area, CDFG and USFWS have required tortoise fencing adjacent to construction zones, tower and pulling sites that border the area where the tortoises were found. SCE has agreed to install tortoise fencing at tower/pulling sites between Towers 7-14, in the area where the tortoises were observed. Fencing has also been installed around the Windhub Substation site. Other measures SCE proposed to avoid impacts to the desert tortoise during construction include:
  - a. An educational flyer be distributed with desert tortoise information and avoidance measures
  - b. Speed limit of 15 miles per hour
  - c. All equipment will be checked for tortoises underneath them prior to being moved
  - d. Flagging of project access roads to ensure that only approved project roads are used
  - e. Biological monitors used in Segment 3A to have previous desert tortoise experience
  - f. If a tortoise is observed in project areas, it can not be moved to facilitate construction
3. Dust at the Windhub Substation site has continued to be a problem and has affected areas outside of the fence. SCE has installed k-rail and plywood along the fence closest to the tortoise burrow to prevent dirt from covering the burrow.
4. As proposed in the Segment 3A stream crossing report, several drainages require protection prior to construction activity to protect streambed and banks. Once these areas are addressed, construction can proceed in these areas.

No Non-Compliance Reports or Project Memoranda were issued during the subject week for Segment 3A/Windhub construction activities. Non-Compliance activities for the project to date are summarized in Table 4.

**Agency Representatives during Construction (other than CPUC EMs):**

None

**CPUC NOTICES TO PROCEED (NTPS) & ANF PERMITTING**

Table 1 summarizes the CPUC Notice to Proceed and ANF permitting activity for the Antelope-Pardee Transmission Project, Segments 1, 2, and 3, to date.

**TABLE 1**  
**CPUC NTPS & ANF PERMITTING**  
(Updated 11/09/09)

NTP #/ Permit	Date Requested	Date Issued	Segment #	Description
CPUC NTPs				
#1	10/10/07	10/16/07	1 & 3	Mojave Marshalling Yard. Per the request, the yard will primarily be used to store construction equipment and materials for the project.
#2	11/16/07	12/10/07	1	Antelope Substation construction and expansion, as well as the use of two adjacent contractor laydown yards.
#2 Mod	12/21/07	01/02/08	1	Allow grading activity at the Antelope site/yards and replacement of an existing 80-foot microwave tower with a new 120-foot tower immediately outside of the communications room within the fenced area of the Antelope Substation.
#3	01/10/08	01/16/08	1	Use of five contractor laydown yards as named Pumpkin Yard, Pottery Yard, Pardee Substation Yard, Mechanics Yard and Avenue I Yard.
#4	01/29/08	02/04/08	1 & 3	Use of the Racetrack Marshalling Yard.
#5	02/19/08	02/28/08	1	Shoofly Construction, Section 1.

NTP #/ Permit	Date Requested	Date Issued	Segment #	Description
#5 Mod #1	03/11/08	03/19/08	1	Use of a new soil disposal site for the Shoofly construction, Section 1.
#5 Mod #2	03/24/08	03/26/08	1	Removal of the 66 kV conductors on the Saugus-Del Sur line during the outage scheduled for March 27, 2008.
#6	03/19/08	03/29/08	1	Use of three additional construction yards, Rodeo, Blue Cloud, and Pumpkin expansion. Rodeo yard approved under NTP #9.
#7	04/03/08	05/08/08	1	Section 1 Construction.
#8	05/01/08	05/09/08	1	10 acre marshalling yard near Antelope Substation.
#9	03/18/08	06/18/08	1, 2, 3	Rodeo Yard
#10	06/02/08	06/25/08	1	12 kV line (Hughes Lake Distribution Line).
#11	06/03/08	06/25/08	1	Section 3 construction.
#12	06/27/08	07/08/08	1	Hydrant Yard
#13	07/17/08	07/18/08	1	Removal of the 66 kV conductors within the ANF, Phase 1, from tower 7-3 (near southern Forest boundary) to 16-3 (near Bouquet Reservoir).
#14	Initial submittal 07/11/08	09/29/08	2	Segment 2 construction.
#15	09/24/08	09/24/08	1	Removal of the 66 kV conductors within the ANF, Phase 2.
#16	10/01/08	10/09/08	1	Section 3, Reitano Marshalling yard.
#17	Initial submittal 09/12/08	10/22/08	3	Segment 3A construction
#18	10/24/08	10/27/08	1	Section 2 construction (Angeles National Forest)
#19	10/31/08	12/01/08	3	Windhub substation construction.
CPUC Addendum	01/29/09	03/16/09	2, 3	Modifications to Sagebrush Structures in Segment 2, addition of a 12 kV distribution line at Windhub Substation.
#20	03/20/09	04/02/09	2	R-8 marshalling yard, City of Palmdale.
CPUC Addendum	03/12/09	4/23/09	3	Addition of a water well at Windhub Substation
CPUC Addendum & NTP #21	4/15/09	4/28/09	3B	Modifications to Wilderness structure in Segment 3B
CPUC Addendum	04/24/09	05/22/09	3B	Change towers 78 and 79 from tubular steel poles to lattice steel towers.
#22	06/03/09	06/04/09	3	12 kV distribution line to Windhub Substation.
CPUC Addendum	06/26/09	08/13/09	2	Reclassify AR 12B and AR 62 to permanent.
#23	07/29/09	08/13/09	3B	Use of the Oaks Creek Energy laydown yard along Willow Springs Road.
CPUC Addendum	08/04/09	09/08/09	1	Reclassify several roads in Segment 1 as permanent.
CPUC Addendum	08/20/09	09/08/09	3A	Reclassify several roads in Segment 3A as permanent.
#24	10/07/09	10/22/09	1	Relocation of 66 kV lines for the Antelope Substation expansion.
CPUC Addendum	11/06/09	Under review	1	Reclassify several roads for Antelope 66 kV relocation as permanent.

NTP #/ Permit	Date Requested	Date Issued	Segment #	Description
<b>ANF PERMITTING</b>				
	11/29/07	12/14/07	1	Radio Repeater – installation of a temporary radio repeater site on Sierra Pelona Ridge to provide communication during construction activities tied to the project. Improvement installation began Jan. 11
	09/27/07	12/14/07	1	Geotechnical testing – 23 geotechnical borings are authorized on National Forest lands to provide additional information that will be used in the design of the transmission towers. Notice to proceed was signed Jan 31 to begin work the week of Feb. 3
		07/14/08	1	Removal of the 66 kV conductor within the ANF, from tower 7-3 (near southern Forest boundary) to 16-3 (near Bouquet Reservoir) Phase I.
		09/23/08	1	Removal of the 66 kV conductor within the ANF, Phase II
		10/23/08	1	Construction of the 500 kV transmission line and wreck-out of the 66 kV towers in the ANF, Section 2.

## VARIANCE & TEMPORARY EXTRA WORKSPACE REQUESTS

Variance Requests and Temporary Extra Workspace (TEWS) Requests submitted to date are summarized in Tables 2 and 3, respectively.

**TABLE 2**  
**VARIANCE REQUESTS**  
(Updated 11/09/09)

Variance Request	Date Requested	Date Issued	Segment #	Description
VR #1	04/01/08	04/03/08	1	Change in construction of an overland travel road to Shoofly pole 18, to a temporary road construction method.
VR #2	04/18/08	04/19/08	1	Several expanded stringing sites, new staging areas, and guard pole installation sites for the removal of the 220 kV line.
VR #3	04/24/08	05/25/08	1	Weekend work along the Shoofly portion of Section 1, within the City of Santa Clarita and Los Angeles County, and at the Antelope Substation, Avenue J, in the City of Lancaster.
VR #4	05/08/08	05/09/08	1	Weekend work along the 66 kV line in Section 1
VR #5	07/15/08	VR will be submitted as separate requests		Expansion of guard pole structure areas in Haskell Canyon, New wire stringing site between NC 11 and 12, and crane pad near NC 20.
VR #6	07/30/08	07/30/08	1	Modification to the notice and review requirements under Mitigation Measures L-5 and L-6.
VR #7	08/12/08	08/16/08	1	Wire Stringing site in Section 1 between NC 11 and 12.
VR #8	08/20/08	08/27/08	1	Guard poles at Haskell Canyon outside of approved disturbance areas.
VR #9	08/19/08	09/09/08	1	Valuzet Movie Ranch Helicopter Landing Zone, Section 1.
VR #10	08/21/08	08/27/08	1	Permission to leave one tower foundation in place at wreck-out tower 24/2 in Section 1, due to likelihood of slope failure.
VR #11	09/12/08	09/16/08	1	New temporary road construction to NC 97 in Section 3.
VR #12 (revised)	09/17/08	Withdrawn	2	Permanent access roads for Segment 2 (see NTP #14).

Variance Request	Date Requested	Date Issued	Segment #	Description
VR #13	09/16/08	09/17/08	1	Turn around for equipment at NC 28 in Section 1.
VR #14	09/18/08	Denied 09/25/08	2	Permanent and temporary access roads in excess of 10% gradient on Segment 2 (see NTP #14).
VR #14 (revised)	10/03/08	Withdrawn	2	Temporary access roads in excess of 10% gradient on Segment 2.
VR #15	9/20/08	9/26/08	1	Access road changes, Section 3.
VR #16	09/26/08	Withdrawn	3	Permanent access roads for Segment 3A.
VR#17	10/14/08	10/15/08	1	Extended weekend work hours between NC 22 & 23 Haskell Canyon utility crossings.
VR#18	10/15/08	10/16/08	1	Wreck-out Tower 25/5 disturbance area and access road and footing removal. Segment 1 Section 3.
VR #19	11/05/08	11/14/08	1	Use of existing disturbance areas as helicopter landing zones, Section 1.
VR #20	11/05/08	11/20/08	1	Use of existing disturbance areas as helicopter landing zones, Section 3.
VR #21	11/24/08	12/10/08	1	Approval to leave two foundations in place at wreck-out tower 25/1
VR #22	12/08/08	12/10/08	2	Use of existing disturbance areas as helicopter landing zones, Segment 2.
VR #23	01/07/09	01/12/09	1	Additional disturbance area near Construction Tower 25 and WSS14 on Section 1.
VR #24	01/08/09	01/27/09	1	Underground fiber optic line for Tower 13 on Section 1
MOD VR #24	02/20/09	03/24/09	1	Modify fiber optic line alignment to Tower 13.
VR #25	01/13/09	01/14/09	1	Work on Sunday, Jan 18, during LADWP outage over Haskell Canyon.
VR #26	01/20/09	01/22/09	1	Permanent lift structure M88-T1A southwest side Antelope substation.
VR #27	01/29/09	01/30/09	1	Extension of approved construction work hours Structures 22 and 23 (Haskell Canyon Crossing).
VR #28	02/02/09	02/04/09	1	2 <sup>nd</sup> wire stringing site for Tower 16.
VR #29	01/29/09	02/06/09	3A	Use of existing disturbance areas as helicopter landing zones, Segment 3A.
VR #30	02/02/09	02/09/09	2	New dead-end lattice tower, New Construction #115.
VR #31	02/19/2009	02/23/2009	2	Modify road alignment for Access Road 56 to Construction 67.
VR #32	03/03/09	03/03/09	1	Nighttime wire removal across Newhall Ranch Road, City of Santa Clarita.
VR #33	03/09/09	03/05/2009	1	Hydrant Yard nighttime emergency helicopter repairs Monday through Saturday.
VR#34	03/12/2009	03/12/2009	1	Work on Sunday March 15 <sup>th</sup> in order to complete the permanent transfer of the temporary Shoofly transmission structures to the new permanent Antelope-Pardee 500 kV double-circuit transmission line, Segment 1, Section 1.
VR #35	03/21/09	03/26/09	2	New Access Road to Tower 83, Segment 2
VR #36	03/09/09	03/31/09	1	Heavy-lift helicopter Segment 1 Section 2 allows for the sky crane to begin flying at 6am for two ten days operations and to fly on one Sunday for each operation. Fly yards outside the ANF will also be used: Upper Pumpkin Yard, Hydrant and Reitano.

Variance Request	Date Requested	Date Issued	Segment #	Description
VR #36 MOD	05/21/09	05/29/09	1	5:00 a.m. crew deployment to Section 2 during Sky Crane operations starting June 1.
VR #37	03/30/09	03/31/09	1	Installation of an underground conduit near Tower 11, Section 1.
VR #38	04/06/09	04/08/09	2	Wire removal structure 27-1 to existing structure 18-3 on the Eagle Rock-Vincent Transmission Line near the Vincent substation.
VR #39	04/06/09	4/10/09	2	Guard pole relocation near hijack towers 34A and 3.
VR #40	04/14/09	04/15/09	2	Sunday work on April 19 <sup>th</sup> , April 26 <sup>th</sup> , May 3 <sup>rd</sup> , and May 10 <sup>th</sup> to take advantage of a scheduled outage.
VR #40 MOD	04/14/09	04/15/09 (verbal)	2	Sunday work on May 17 <sup>th</sup> and 24 <sup>th</sup> .
VR #41	04/24/09	05/04/09	2	Three additional wire stringing sites between Towers 106-108.
VR #42	04/28/09	05/06/09	1	Expansion of WSS-13, Section 1.
VR #43	05/01/09	05/08/09	3A	Changes to cultural resource mitigation and changes to access roads to avoid sites.
VR #44	05/15/09	05/22/09	3	Waive $\leq 15$ mph speed restriction for site preparation at Windhub Substation.
VR #45	4/28/09	ANF: 05/20/09 CPUC: 05/22/09	1	Use of alternate access near Bouquet Reservoir to access WSS 23.
VR #46	06/02/09	06/18/09	3A	New construction access to towers to avoid LADWP right-of-way.
VR #47	05/28/09	06/17/09 Pond Only	3	Installation and use of pond at Windhub Substation and two water tanks on private property.
VR #48	06/26/09	07/01/09	3A	Realignment of existing access road to Towers 3A-2 and 3A-3 to avoid AT&T utility vault.
VR #49	07/17/09	07/22/09	2	Additional space for wire splicing near Towers 6-8, and 15-16.
VR #50	07/21/09	07/23/09	2	Sunday work to conduct wire stringing.
VR #51	07/23/09	07/28/09	3A	Reduction of the 60-day requirement to securing agreements prior to construction (MM Ag-3).
VR #52	07/27/09	07/28/09	3A	Change in proposed access to Tower 43, from overland travel to vegetation removal.
VR #53	07/29/09	07/30/09	1	Modification to existing tower M24-T1 on Section 1, so that an excessive height differential between Const 25 and M24-T1 can be corrected.
VR #54	08/13/09	08/25/09	2	Additional Wire Stringing and Guard Pole sites, and extended work hours.
VR #55	08/31/09	09/09/09	2	New wire splice sites between Tower 86-88, new wire setup site between Tower 95-96 and near Tower 113.
VR #55 Mod	11/06/09	Under review	2	Disturbance Area shift that was needed for conductor splicing near Const 86 and 88.
VR #56	09/10/09	09/11/09	2	Temporary relocation of the 12 kV distribution line Bootlegger, at the Vincent Substation.
VR #56 Mod	11/06/09	Under review	2	Leave the underground bypass in place for future anticipated construction related to TRTP. Add access road covered in previously approved TEWS.

Variance Request	Date Requested	Date Issued	Segment #	Description
VR #57	09/15/09	09/18/09	3A	Temporary transmission line bypass and access road at Windhub Substation.
VR #58	09/16/09	09/29/09	3A	Additional Wire Stringing Sites.
VR #59	10/08/09	10/14/09	3A	Additional Wire Stringing Site Towers 48 and 49
VR #60	10/15/09	10/16/09	1	Modification to MM PH-6, notification timing for energization.
VR #61	10/21/09	10/21/09	2, 3A	Work on Sunday, December 26 and November 1.

**TABLE 3**  
**TEMPORARY EXTRA WORKSPACE (TEWS) REQUESTS**  
(Updated 11/09/09)

TEWS Request	Date Requested	Date Approved	Segment #	Description
TEWS 1	05/15/08	05/16/08	1	Extra Workspace for steel placement outside of disturbance limits adjacent to New Construct tower (NC 3) in Section 1.
TEWS 2	05/19/08	05/21/08	1	Extra Workspace for steel placement adjacent outside of disturbance limits to New Construct tower (NC 12) in Section 1.
TEWS 3	05/20/08	05/20/08	1	Extra Workspace for equipment parking outside of disturbance limits along shoulder of private road adjacent to New Construct tower (NC 2) in Section 1.
TEWS 4	05/27/08	05/27/08	1	Access for crew trucks to 66 kV wreck-out tower 6-1.
TEWS 5	07/03/08	07/16/08	1	Extra Workspace for steel placement and tower assembly near NC 12.
TEWS 6	09/04/08	09/04/08	1	Use of Staging area adjacent to NC 2 in Section 1.
TEWS 7	09/04/08	09/04/08	1	Use of dirt road adjacent to ten acre yard, Section 3.
TEWS 8	09/11/08	09/11/08	1	Helicopter landing site, Section 3.
TEWS 9	09/18/08	09/18/08	1	Use of 3 acres of disturbed land adjacent to the Lower Pumpkin Yard.
TEWS 10	10/03/08	10/03/08	2	Use of 2 acres of disturbed land in the Lane Ranch for parking equipment, Segment 2.
TEWS 11	12/05/08	12/05/08	1	Overland travel access in disturbed areas for 12 kV pole removals.
TEWS 12	01/15/09	01/15/09	1, 2, and 3	400-foot-by-400-foot disturbance area for the MV 88-T1A lift structure and a 100-foot radius disturbance area on the two Midway Vincent #3 structures to the north and to the south of the lift structure.
TEWS 13	01/29/09	01/29/09	2	Extra Workspace for steel placement outside of disturbance limits adjacent to tower 2 Segment 2.
TEWS 14	04/07/09	04/07/09	1	Extra Workspace for stringing between Towers 110 and 112.
TEWS 15	04/07/09	04/07/09	2	Extra Workspace required to access conductor on Sagebrush line near Tower 106.
TEWS 16	04/15/09	04/16/09	3A	Extra Workspace needed to avoid fiber optic vault along access road near Tower 2.
TEWS 17	04/15/09	04/15/09	2	Extra Workspace needed to access area near Tower 37 adjacent to Elizabeth Lake road in order to install guard pole structure in "flower pots".

TEWS Request	Date Requested	Date Approved	Segment #	Description
TEWS 18	04/17/09	04/22/09	2	In order to complete work at Sagebrush tower 2A PAR crews need to access an existing SCE tower (SCE4) a 100-foot-by-100-foot disturbance area is requested.
TEWS 19	04/23/09	04/24/09	2	SCE is installing a tubular steel pole (TSP) for the 66 kV line, relocating wires from wood pole to TSP and then removing wood pole.
TEWS 20	04/25/09	04/25/09	2	Between Towers 33 and 34A drive and crush on an existing access road for bucket truck (grounding tower for energized work).
TEWS 21	05/28/09	05/28/09	1	Additional workspace for wire pulls near Tower 113.
TEWS 22	05/28/09	05/28/09	1	Additional workspace for tower wreck-out, Section 1.
TEWS 23	06/02/09	06/02/09	3	Water source for Windhub Substation, hydrant along Tehachapi Willow Springs Road.
TEWS 24	06/03/09	06/03/09	2	Extra workspace for equipment staging near Tower 106.
TEWS 25	06/09/09	06/09/09	3	Additional water source for Windhub Substation, hydrant along Tehachapi Willow Springs Road.
TEWS 26	06/18/09	06/18/09	1	Bike trail access to wreck-out 28/2 near Tower 9.
TEWS 27	07/16/09	07/20/09	3	Extra workspace for stock piling capping material for cultural sites.
TEWS 28	08/19/09	08/20/09	2	Use of existing dirt roads near Towers 108 and 112 to access guard pole sites Segment 2.
TEWS 29	09/09/09	09/10/09	2	Use of existing dirt road near existing Tower and adjacent to the Vincent sub in order to access 12 kV line Bootlegger.

## NON-COMPLIANCES & INCIDENTS

A summary of Project Memorandum, Non-Compliance Reports, and other incidents to date are provided in Table 4.

**TABLE 4**  
**NON-COMPLIANCES, PROJECT MEMORANDA, AND OTHER INCIDENTS**  
(Updated 11/09/09)

Type	Date	Location	Description
Project Memorandum #1	03/25/08	Segment 1, Section 1	Deposition of soil into drainage at Soil Disposal site.
Project Memorandum #2	04/18/08	Segment 1, Section 1	Encroachment into Environmentally sensitive area during stringing operations.
Project Memorandum #3	04/30/08	Segment 1, yards	No clearance surveys of construction yards being conducted during bird nesting season.
Project Memorandum #4	05/21/08	Segment 1, Section 1	Inaccurate and incomplete resource maps.
Project Memorandum #5	08/06/08	Segment 1, Section 3	Completion of 12 kV wreck-out of 21 poles outside of disturbance area prior to Variance approval.
Incident	09/10/08	Segment 1, Section 3	Spill resulting from overturned cement truck. Incident report documenting spill amounts submitted on October 15.

Type	Date	Location	Description
Incident	10/13/08	Segment 1, Section 1	Spill resulting from overturned portable toilets at the Pottery Yard during high winds. The CPUC EM was not notified until a spill report was submitted on October 30. Spill was not cleaned up until the next day.
Incident	10/15/08	Segment 2	66 kV crews delivered materials to the right-of-way before disturbance areas had been flagged and biologically surveyed.
Incident	10/16/08	Segment 1, Section 3	Spill resulting from a broken hydraulic hose. Incident report pending.
Incident	11/06/08	Segment 1, Section 3	12 kV underground crews began work before disturbance areas had been flagged and biologically surveyed.
Incident	11/18/08	Segment 1, Section 2	No topsoil was separated prior to grading near NC 33.
Non-Compliance #1	12/01/08	Segment 1	Construction vehicles crossing through flowing waters of Bouquet Creek to access the Pumpkin Yard.
Non-Compliance #2	12/03/08	Segment 2	SCE 66 kV crews working without notifying Environmental staff and no disturbance areas had been flagged.
Incident	12/17/08	Segment 1, Pumpkin Yard	Jet fuel, diesel, and other hydrocarbon spill resulting from helicopter accident. Incident report submitted December 29.
Project Memorandum #6	01/23/09	Segment 2	Heavy equipment causing ground disturbance within Environmentally Sensitive Area (ESA).
Incident	01/27/2009	Segment 2 Avenue I Yard	Diesel spill approximately 15 to 20 gallons from a subcontractor diesel truck. 30-40 tons of contaminated soil was removed.
Incident	02/02/09	Segment 2	Five gallon spill of antifreeze on Access Road 55.
Incident	02/04/09	Segment 2	Less than one pint of diesel fuel was spilled on the access road to Structure 47; approximately five gallons of contaminated soil was collected.
Incident	02/04/09	Segment 2	One quart hydraulic fluid spilled at Structure 22 when backhoe tipped over.
Incident	02/05/09	Segment 1, Section 2	Hydrant Yard - excavator for steel disassembly blew out a hydraulic line spilling one quart of fluid.
Incident	02/05/09	Segment 2	Diesel theft from Terex crane at Structure 5 resulted in ½ to 3 gallon spill.
Incident	02/11/09	Segment 2	Unknown hydrocarbon soil stain approximately 1 square foot all contaminated materials removed near Const 24.
Incident	03/06/09	Mojave Yard	Hydrocarbon staining from leaking equipment in storage yard.
Incident	03/09/09	Segment 1	1 cup hydraulic spill at Lower Pumpkin Yard, Segment 1.
Incident	03/09/09	Segment 1 Section 2	¼ cup hydraulic spill at Tower 60, Section 2 ANF.
Incident	03/09/09	Segment 1 Section 2	Form oil staining on ground near Towers 33, 34, and 36 on Section 2, ANF.
Incident	03/10/09	Segment 2	Oil staining from equipment within Avenue J yard.
Incident	03/12/09	Segment 1 Section 2	Micro-trash observed in several steel assembly areas on Section 2, ANF.
Incident	03/13/09	Segment 2	Transmission oil spill at Tower 43, Segment 2.
Project Memorandum #7	03/19/09	Segment 3A	Road staking crews entered an Environmentally Sensitive Area while flagging new access roads.
Incident	3/24/09	Segment 2	Diesel spill at Tower 71.
Incident	3/26/09	Section 1, Segment 1	Wire removal next to active scrub jay nest with no biological monitors present.

Type	Date	Location	Description
Incident	3/30/09	Ave I yard	Spill of ¼ cup hydraulic fluid as result of equipment theft.
Incident	3/31/09	Section 1, Segment 1	¼ cup hydraulic spill at Shoofly 4 in Section 1.
Incident	3/31/09	Section 2, Segment 1	15-gallon hydraulic spill at AHS 19 resulting from broken line on cement truck.
Incident	4/01/09	Segment 2	1-gallon diesel spill at snub site near Tower 35.
Incident	4/09/09	Segment 3A	Grading along access road proposed as no improvement.
Incident	4/10/09	Segment 1, Section 2	Engine oil staining at AHS 10 on the ANF.
Incident	4/10/09	Segment 2	5-gallon fuel spill from an overturned truck near Towers 66-67.
Incident	4/18/09	Segment 2	3-gallon fuel spill near Tower 37.
Incident	4/22/09	Segment 1, Section 3	8-10 gallons of hydraulic fuel near Tower 110.
Incident	4/23/09	Segment 2	1-quart diesel spill near Tower 36.
Incident	4/24/09	Segment 2	3-gallon hydraulic spill near Tower 63.
Incident	4/25/09	Hydrant Yard	Nest removal conducted without authorization from USFWS and CDFG.
Incident	4/27/09	Segment 2	2 cup Hydraulic spill from ruptured hose near Tower 107.
Incident	4/27/09	Segment 2	3-gallon hydraulic spill from ruptured hose near Tower 63.
Incident	4/28/09	Hydrant Yard	3-quart hydraulic spill from forklift in Hydrant Yard.
Incident	5/01/09	Section 2, Segment 1	A project helicopter had to make an emergency landing on the bank of the Bouquet Reservoir. Incident report 7/09/09.
Incident	5/02/09	Pottery Yard	2-3 ounce hydraulic spill at Pottery Yard.
Non-Compliance #3	5/06/09	Segment 3A	Work was allowed to occur within 200 feet of an active Swainson's Hawk nest near Tower 31. CDFG and CPUC were not immediately notified of the nest.
Incident	5/11/09	Racetrack Yard	1 cup antifreeze spill.
Incident	5/19/09	Segment 3A	2-gallon hydraulic spill at Tower 42.
Non-Compliance #4	5/22/09	Segment 3A	SCE did not provide agency reduction in resource buffer at Tower 80 and the nest was not monitored during construction.
Non-Compliance #5	5/22/09	Windhub Substation	Several activities occurred without Variance approval, including night work, placement of water tanks on private property, construction of a water storage pond, and exceeding the 15 mph speed limit.
Incident	5/27/09	Segment 1, Section 3	½ cup hydraulic fluid spill near Tower 112.
Incident	5/26/09	Windhub Substation	10-gallons of hydraulic fluid leaking from equipment.
Incident	5/28/09	Segment 2	Hydraulic fluid spill near Tower 75.
Incident	5/28/09	Segment 2	¼ cup hydraulic fluid spill near Tower 65.
Incident	6/11/09	Segment 2	Two small soil stains at the guard pole location between Towers 106 and 107. Hydraulic stain less than one cup and a diesel stain less than one gallon.
Incident	6/15/09	Mechanics Yard	Approximately one quart of hydraulic fluid/motor oil from rewind machine 3003
Incident	6/16/09	Mojave Yard	Less than 2 cups of hydraulic fluid spill underneath rewind machine 3013
Incident	6/17/09	Segment 2	Hydraulic fluid spill less than ¼ cup from crane BE9017 Tower 35.

Type	Date	Location	Description
Incident	6/17/09	Segment 2	¼ cup hydraulic fluid spill from forklift JREFL 534 near Tower 35.
Incident	6/22/09	Hydrant Yard	Two quarts hydraulic fluid spill from equipment.
Incident	6/23/09	Rodeo Yard	¼ cup hydraulic fluid from ws-719 wire truck.
Incident	6/23/09	Segment 2	Near Tower 37 approximately 3-5 gallons of diesel fuel unknown source.
Incident	6/25/09	Segment 3A	One gallon of hydraulic fluid spill at Tower 23 from crane.
Incident	6/26/09	Segment 2	Near Tower 59 one pint of hydraulic fluid from bulldozer.
Incident	6/29/09	Segment 2	Tower 59 one quart of hydraulic fluid from bulldozer.
Incident	7/02/09	Mojave Yard	A few tablespoons of hydraulic fluid from wire puller.
Incident	7/02/09	Rodeo Yard	¼ to ½ cup of hydraulic fluid.
Incident	7/06/09	Segment 2	Rodeo Yard engine oil leak from wire pulling truck W5719 a few drops.
Incident	7/07/09	Segment 2	Rodeo Yard hydraulic spill ¼ to ½ cup blue trailer equipment #RT3014
Incident	7/09/09	Segment 2	¾ of a cup of unidentified fluid underneath wire truck WS250 at the Ave I Yard.
Project Memorandum #8	7/13/09	Segment 1, Section 2	Construction activities at wire stringing site 23 south of Bouquet Reservoir were initiated prior to the submittal of the 7-day biological clearance report.
Incident	7/15/09	Segment 3A	Antifreeze spill when driller radiator cap broke.
Incident	7/16/09	Segment 2	¼ cup hydraulic fluid spill at the Ave I Yard and ½ of cup of hydraulic spill from the outrigger of the self loading pole hauler.
Incident	7/16/09	Segment 2	One gallon diesel fuel spill when filling up dozer near Tower 51.
Incident	7/16/09	Segment 2	Illegal dumping of engine motor oil on the ROW near Tower 12.
Incident	7/16/09	Segment 2	Approximately 3 gallons of diesel fuel near Tower 16 source unknown.
Incident	7/18/09	Windhub	One and a half cups of hydraulic fluid leak from 3 graders.
Incident	7/23/09	Mojave Yard	One quart and two cups of diesel/hydraulic spill
Incident	7/28/09	Segment 1, Section 2	A willow tree was broken during guard pole installation. No biologist was present.
Incident	7/30/09	Segment 3A	Near Tower 45 one cup diesel spills from front loader.
Project Memorandum #9	8/04/09	All Segments	SCE not submitting weekly reports in a timely manner.
Incident	8/07/09	Segment 2	Diesel fuel spill near Tower 22 a few drops.
Incident	8/07/09	Segment 2	Engine oil less than ½ cup from a wire puller between Towers 22 and 23.
Incident	8/07/09	Segment 2	Hydraulic fluid spill Tower 10 less than ½ cup.
Incident	8/07/08	Segment 2	Hydraulic fluid spill near Tower 22 1 to 2 quarts.
Incident	8/07/09	Segment 2	Hydraulic fluid spill Tower 16 approximately 3 cups.
Incident	8/10/09	Segment 2	Hydraulic fluid less than one quart from a National Crane Series 1800.
Incident	8/11/09	Segment 2	Near Tower 2 one quart hydraulic fluid from the boon truck.
Incident	8/12/09	Windhub Substation	Hydraulic fluid approximately 1/8 cup from bucket truck.
Incident	8/25/09	Segment 2	15 to 20 gallons of hydraulic fluid from a crane truck JRETC545 between Towers 37 and 38.

Type	Date	Location	Description
Incident	8/26/09	Segment 2	Approximately 2 cups of diesel fuel on access road to guard pole 112.
Incident	8/31/09	Segment 2	Approximately 2 cups of diesel spill from wire puller WSS 107.
Incident	9/02/09	Segment 2	Approximately 2 cups of diesel spill from wire puller WSS 106A.
Project Memorandum #10	09/09/09	Segment 2	Construction crews dumped excess soils into an area not approved for project used. A biological clearance survey was not conducted or submitted prior to use.
Incident	09/08/09	Windhub Substation	Spill approximately 4 tablespoons hydraulic fluid from PCS grader #613C
Incident	09/09/09	Segment 3A	Spill approximately 2 tablespoons hydraulic fluid from Driller #D203 Tower 1.
Incident	09/16/09	Segment 2	Diesel spill approximately one quart.
Incident	09/23/09	Segment 2	Approximately 20 gallons of hydraulic fluid leak from a crane.
Incident	09/24/09	Segment 2	Diesel spill approximately 2 quarts from wire puller WS504.
Incident	09/28/09	Segment 2	7 to 10 gallons of hydraulic fluid from the crane truck near Tower 67.
Incident	10/02/09	Segment 2	Approximately 2 cups of diesel fuel from wire puller WS504.
Incident	10/02/09	Segment 1	Hydraulic fluid spill less then one gallon near Tower 100.
Incident	10/02/09	Segment 2	Approximately 1-2 cups diesel fuel spill Sagebrush 250 distribution area.
Incident	10/02/09	Section 3, Segment 1	Damage to a foundation in Section 3, CPUC EM was not notified.
Incident	10/03/09	Segment 2	½ cup hydraulic spill at Tower 95
Incident	10/03/09	Segment 2	½ cup diesel spill at WSS 95-96
Incident	10/05/09	Segment 2	½ cup hydraulic spill at Tower 95
Incident	10/05/09	Segment 2	Small power steering fluid lead at Tower 95
Incident	10/05/09	Windhub	10-20 gallon diesel spill at Windhub Substation
Incident	10/12/09	Segment 2	½ to 1 gallon radiator fluid leak at Tower 31.
Incident	10/17/09	Segment 2	1 gallon diesel spill at Tower 96.
Project Memorandum #11	10/22/09	Segments 1,2	Untimely notification of new cultural resource find in Segment 2 and damage to historic property in Segment 1, and construction occurring with no cultural monitors present in Segment 2.

## PROJECT PHOTOS



**Figure 1:** Recontoured areas at Tower 17, Section 1.



**Figure 2:** Side cast material along access road near Tower 48, Segment 2.



**Figure 3:** Fiber optic trenching at Tower 22, Segment 2.