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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:** June 9, 2009

**Subject:** Weekly Reports 70 and 71: May 10 to May 23, 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. 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. NTP #7 for Section 1 of Segment 1 was issued by the CPUC on May 8<sup>th</sup>. Construction activities approved under NTP #7 include 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 NTPs #5 and #7 during the subject period consisted of the following activities.

- 1. All new 500 kV lattice steel towers have been erected in Section 1.
- 2. Final wire installation work along the new 500 kV double circuit towers has been completed between the Pardee Substation and Structure 25. Wire conductor installation between Structures 25 and 28 (the last towers in Section 1) is expected to occur once the towers in Section 2 are completed.

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- 3. Conductor removal on the 220 kV wreck-out began between Kelly Johnson Parkway and McBean Road in Santa Clarita. Once the wire is removed, dismantling of the remaining 13 towers will take place.
- 4. Road recontouring of the temporary Shoofly access roads has been completed (see Figure 1). Revegetation of these areas is planned for later this year. A site tour and final walk-through of the Shoofly roads is planned with SCE, Aspen, and Burns and McDonnell.

#### **Environmental Compliance:**

- 1. Burns and McDonnell environmental staff are conducting regular monitoring of Section 1 work areas and wreck-out towers for bird nesting activity.
- 2. An inactive bird nest was removed from wreck-out Tower 28/6 during the subject period.
- 3. SCE submitted a request to reopen the Lower Pumpkin Yard for construction use. The request was approved by CDFG with the same conditions as before, that access to the yard would not take place during flows of Bouquet Creek which supports an endangered fish species and crosses the entrance to the yard. If water is present, crews are not permitted to cross the drainage and are required to notify CDFG and the CPUC.

No CPUC Non-Compliance Reports (NCR) or Project Memoranda (PM) was issued during the subject period for Section 1 Construction. Non-Compliance activities for the project to date are summarized in Table 4.

#### **Agency Representatives:**

None.

#### **SECTION 2, ANF & ADJACENT YARDS**

**ANF Representatives:** Justin Seastrand, George Geer, Mike Roberts, Janet Nickerman, Katie VinZant **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<sup>th</sup>. 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<sup>th</sup>. Crews assemble each morning at the Pottery Yard on Bouquet Canyon Road at 6am. Crews plan to work 6 days a week if Project Activity Levels (PAL) allow. Sunday micropile work has also been authorized by the ANF. PAL levels for the subject period are summarized below:

Date	Project Activity Level (PAL)	Activity Allowed/Conducted
Sunday, May 10	EV	Work is allowed
Monday, May 11	EV	Work is allowed
Tuesday, May 12	EV	Work is allowed
Wednesday, May 13	Е	No Work is allowed without Variance from ANF
Thursday, May 14	EV	Work is allowed
Friday, May 15	EV	Work is allowed
Saturday, May 16	Е	No Work is allowed without Variance from ANF
Sunday, May 17	Е	No Work is allowed without Variance from ANF

Date	Project Activity Level (PAL)	Activity Allowed/Conducted
Monday, May 18	EV	Work is allowed
Tuesday, May 19	EV	Work is allowed
Wednesday, May 20	EV	Work is allowed
Thursday, May 21	EV	Work is allowed
Friday, May 22	EV	Work is allowed
Saturday, May 23	EV	Work is allowed

Construction activities during the subject period consisted of the following:

- 1. On May 5<sup>th</sup>, ANF representatives Justin Seastrand and Nathan Still toured the proposed new access road to WSS 23, near the Bouquet Reservoir. The alternative access was requested by SCE to avoid adjacent cabin owners and because the original access road has adjacent trees which would require trimming in order for the large equipment to access the stringing site. Because the alternate access is on ANF and LADWP property, both agencies will have to issue approval for road use. A Variance allowing use of this alternate access has been issued by the ANF and the CPUC.
- 2. Brush clearing crews have completed clearing vegetation in disturbance areas on the ANF; however, some tower assembly areas and fly yards require additional vegetation mowing if they will continue to be used for construction. The ANF has indicated that the Assembly Fly Yards used during the Sky Crane operations will have to be mowed prior to use.
- 3. Micropiling crews have completed most foundations on the ANF. Grouting crews are working out of the Hydrant Yard for the micropiling operations; grout is flown into the micropile sites from the Hydrant Yard. All towers on the ANF are constructed with micropile foundations except for the road accessible sites (4 towers total).
- 4. Tower foundation capping is taking place after micropiling has been completed. The foundation capping crews worked between structures 74 and 87 during the subject period. Concrete for the foundation caps is being flown out the assembly areas on Del Sur Ridge and out of the Hydrant Yard.
- 5. Tower section assembly is occurring at the tower assembly areas on the ANF and in nearby yards (see Figures 2 and 3).
- 6. The heavy lift helicopter, an Ericsson Sky Crane, is scheduled to begin June 1<sup>st</sup> to fly in and assemble tower sections for structures 31, 57-87.
- 7. United Construction crews (PAR's subcontractor) finished removing the 66 kV lattice towers from the ANF. Project environmental staff was present to verify removal and remove any microtrash left on site.
- 8. On May 22<sup>nd</sup>, SCE submitted a request to install soil stabilization slabs at Tower 45 on the ANF.

#### **Environmental Compliance**

- 1. Microtrash on the ANF continued to be present in assembly areas and at tower sites. The ANF Permit Administrator indicated that microtrash must be collected at all work areas at the end of each day. This issue will be continually monitored during construction on the ANF. Burns and McDonnell have dedicated monitors to survey the work areas for mircotrash.
- 2. On May 1<sup>st</sup>, a project helicopter had to make an emergency landing on the bank of the Bouquet Reservoir. The helicopter landed partially in the water and LADWP was immediately notified. LADWP and PAR Environmental Staff reported that there was no spill of hazardous materials on site. The ANF Permit Administrator was also notified of the emergency landing. The CPUC Project Manager has requested an incident report, but none has been provided to date.

- 3. An active raven nest was reported in Tower 33 on the ANF. SCE has coordinated with the ANF to conduct stringing operations in the area and will monitor the nest for disturbance during construction activities.
- 4. A sage sparrow nest (containing chicks) was identified near Tower 60. Biologists will continue to monitor the nest during construction activities.
- 5. A house finch nest containing an egg was found on a tower section in AHS 16 on the ANF. SCE obtained permission to relocate this nest into a nest box in the same area; however, when the biologist arrived to move the nest, it was observed to have been predated.
- 6. A house finch nest containing one egg was found to be located in a forklift parked near Tower 52 and was monitored for activity. The monitoring biologist accidentally destroyed the egg while checking the nest.
- 7. Additional nests reported on the ANF include Tower 57 (house finch), Tower 49 (2 house finches), Tower 39 (5 house finches), and Tower 54 (2 house finches).
- 8. At the Hydrant Yard, two house finch nests were identified. One in a boom truck and one in a tower section. These nests will continue to be monitored by project biologists.
- 9. An inspection of the newly constructed roads on the ANF was previously conducted by Mike Roberts, ANF. Mr. Roberts noted several road drains would require regular cleaning out and run off silting in areas of riprap along SR 52 should be monitored.
- 10. All vehicles and equipment are being washed before entering ANF lands at the Pumpkin Yard wash station. The wheel wash, which is on the north side of Bouquet Creek and does not require use of the stream crossing for access, will remain in its current location. Other wheel wash stations have been set up at the entrance to Spur Roads 41 and 52, Spunky Edison Road, and the access to Towers 76-77. All vehicles and tracked equipment must be washed prior to entering these new roads in order to minimize the spreading of invasive plant species in the recently disturbed soils.
- 11. Changes to two activities were granted by the ANF Project Administrator. Tower assembly and chipping of vegetation in Landing Zones can continue beyond 1pm on EV days. These two activities can occur as long as a water truck is present with a minimum of 300 gallons of water and a charge hose, and all the vegetation has been cut down to two inches.
- 12. The ANF Permit Administrator has requested that all topsoil storage sites (SR 41, 52, and 73 and associated WSS sites) be flagged and identified with ESA signs.
- 13. There must be a ten foot clearance around all equipment and engines, and all the vegetation must be cut to a minimum height of two inches.
- 14. SCE must provide updated bird nest tracking tables and maps on a weekly basis to all project biological monitors and CPUC EMs.

No CPUC Non-Compliance Reports (NCR) or Project Memoranda (PM) was issued during the subject period for Section 2 construction. Non-Compliance activities for the project to date are summarized in Table 4.

Agency Representatives during Construction (other than ANF representatives and the CPUC EMs):

None.

#### 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<sup>th</sup>. 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 continued for the Antelope Substation expansion work. Construction of the 12 kV distribution line as authorized under NTP #10 has been completed, and the line was energized on September 2<sup>nd</sup>.

Construction activities under NTPs #2 and #11 during the subject period consisted of the activities noted below. PAR Construction is responsible for constructing the 500 kV structures.

- 1. All towers in Section 3 have been assembled. Wire stringing, clipping in, sleeving, and sagging was completed between Towers 96 and 112. Installation of the static and fiber optic lines between Towers 96 and 112 is on hold due to active great horned owl and kestral nests within 200 feet of Tower 103.
- 2. Guard poles were installed along Elizabeth Lake Road in advance of wire pulling activities.
- 3. Grading, grounding, and fencing of the Antelope Substation expansion area has been completed. An earthen berm was constructed surrounding the expansion area to assist in drainage. Crews continued the construction of the new substation components within the expansion area.

#### **Environmental Compliance**

- 1. Several new nests were identified in Section 3. Partial raven nests under construction in the new towers were removed from Towers 91, 92, 93, 100, and 102, in Section 3. Raven and loggerhead shrike nest were found near Tower 102.
- 2. Partial stick nests were removed from Tower 96 several times over the nesting season. On May 13<sup>th</sup>, a single egg was found on the steel frame of the tower and another found the next day. CDFG and USFWS were consulted and allowed SCE to remove the eggs. A concern was raised by CDFG regarding the constant removal of nesting material without providing an alternative suitable nesting location nearby.
- 3. An active house finch nest was identified in a boom truck located in the Avenue J yard on April 26<sup>th</sup>. The truck was red flagged and will not be moved until the chicks fledge.

No CPUC Non-Compliance Reports (NCR) or Project Memoranda (PM) was issued during the subject period for Section 3 construction. 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<sup>th</sup>. 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. During the subject weeks, PAR crews completed work around two of the three "Hijack" areas: Northern Highjack Towers 23-30 and Middle Hijack Towers 33-37. Construction activities included the stringing of the new conductor (wire) between Towers 23-30, the modification of existing transmission structures, and the setting of guard structures (guard poles) for the protection of roadways and other transmission or distribution lines during the wire stringing operation.
- 2. PAR crews continued work on the existing Sagebrush Transmission Line Modifications at three locations: North of Elizabeth Lake Road, North of Sierra Highway, and Vincent substation. These modifications are required in order to construct Segment 2. The new Midway-Vincent transmission line, built on new infrastructure, would travel underneath other existing transmission lines in the existing Midway-Vincent right-of-way.
- 3. Grading and clearance of three additional disturbance areas to conduct wire stringing work between Towers 105 and 108 were started after the biological clearance surveys had been completed under Variance #41. The three additional disturbance areas are located adjacent to existing disturbance work areas and are necessary to support wire stringing activities.
- 4. PAR crews started wire pulling work on the 500 kV Line that crosses two Los Angeles Department of Water and Power (LAWDP) 500 kV lines between Towers 106 and 107 under Variance # 41. Initially, wire pulling was planned to occur between Towers 105 and 110 spans. However, due to outage restrictions during wire pulling operations on the Segment 2 500 kV transmission line, the available outage time may only permit a wire pull between Towers 106 and 107.
- 5. Modification of Sagebrush Structure 211 has been completed. The existing single pole tangent structure was replaced with a 2-steel pole H-frame structure (211-1/211-2) in the same location.
- 6. Modification of Sagebrush Structures 249 and 250 has been completed. These single pole structures have been replaced with 2-steel pole H-framed structures (249-1/249-2 and 250-1/250-2) in the same locations.
- 7. All access roads for the 500 kV towers have been completed in Segment 2.
- 8. Pad grading for all tower sites have been completed.
- 9. Drilling and pouring of foundations for all tower sites except Tower 115 have been completed. Tower 115 is on hold due the close proximity of a Red Tailed Hawk nest in an adjacent tower.
- 10. Steel assembly continued along all areas of Segment 2.

# **Environmental Compliance:**

1. A red-tailed hawk nest containing young was observed in existing Tower 112/6, near the Vincent Substation. This tower also contains a western kingbird nest. After consultation with CDFG, work within a 500-foot buffer will not take place until the birds fledge.

- 2. Two western kingbird nests and one house finch nest were found in towers and equipment crucial to the completion of the hijack work. Permission to work in close proximity of these active nests was obtained by CDFG and the nests were monitored during construction.
- 3. Other new nests reported in Segment 2 during the subject period include a black headed grosbeak nest near Elizabeth Lake Road, a sage sparrow nest near Tower 50, and a California towhee nest near Tower 51. Partial raven nests were removed from Towers 20 and 36 during the subject period.
- 4. As conditioned in the NTP, all sensitive resources are being flagged for avoidance and verified by the CPUC EM prior to construction.
- 5. Juniper and Joshua trees impacted by construction are being tracked by Burns and McDonnell environmental staff for future mitigation.

No Non-Compliance Reports were issued by the CPUC EM for the subject week for work being conducted within Segment 2. Non-Compliance activities for the project to date are summarized in Table 4 near the end of this report.

# 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. Several properties in Segment 3A are in the condemnation process. Construction activities during the subject period are summarized below.

#### **Summary of Activity**

- 1. Some areas of Segment 3A have not been released for construction because of real estate acquisition. As new areas become available, SCE submits the biological clearance survey information to the CPUC, the resources are flagged for avoidance and the CPUC EM verifies that the flagging is in place prior to construction. To date, the following areas have been verified by Aspen and are released for construction: Towers 2, 3, 10, 11, 17, 18, 21-42, 52-95, and 97-103.
- 2. SCE reported an unanticipated cultural resource near Tower 53, and a written report will be submitted to the CPUC.
- 3. Foundation crews continued drilling and pouring concrete between Towers 87 and 75.
- 4. Assembly of the Tubular Steel Pole base sections have occurred between the Antelope substation and Tower 81 (see Figure 4).
- 5. Tortoise proof fencing was replaced surrounding tower sites 9-11 because the original material was not strong enough to withstand the windy conditions. The material used for the tortoise fencing was approved by USFWS and CDFG. The agencies recommended that the fences be regularly monitored in case animals become trapped inside or become entangled in the fencing itself.
- 6. On May 13<sup>th</sup>, a site visit was conducted to look at several biological resources identified in Segment 3A. CDFG, SCE, Aspen, and Burns and McDonnell toured Segment 3A to look at the Swainson's hawk nests found near the Segment 3A right-of-way and a newly discovered desert tortoise burrow immediately outside of the Windhub Substation. CDFG representative, Dave Hacker, expressed the need to control off-site soil transport in order to prevent sediment deposition at the burrow location.

- 7. Preparation of the Windhub Substation site continued, but was interrupted by SCE who directed the grading contractor to halt earth moving activity until the tortoise fencing was complete. Once the fencing was installed, grading resumed. Large earth moving equipment has been brought to the site and SCE requested a variance from the 15 mph speed limit for dust control. At the request of Aspen, CDFG and USFWS concurrence was required since the substation site had not been completely surrounded by fencing to prevent tortoises from entering the site and given the potential for transfer of dust off-site (see #6 above). Variance Request #44 was approved by CPUC on May 22.
- 8. The CPUC Project Manager notified SCE that a Variance would be required for the water storage pond (already constructed) on the substation site, and the installation and use of two water tanks off site. Project vehicles were trucking the water from the tanks to the substation site to fill up the holding pond, including during nighttime hours. Neither the pond or off site tank installation were proposed and evaluated as part of the Windhub Substation construction. The earth moving equipment, which is normally operated between 25-30 mph, began without the variance approval from the CPUC or providing concurrence from CDFG and USFWS; however, grading operations were again terminated by SCE until variance approval was granted by CPUC in response to an issued Non-Compliance Report (see #3 below). The subject variance was submitted on May 28; however, the final riparian bird survey is still pending. In the mean time, SCE has found two alternate sources of water and grading has resumed.

#### **Environmental Compliance:**

- 1. A desert tortoise was observed by construction personnel crossing a project access road near Towers 8-9 on May 14<sup>th</sup>. The animal sighting was reported to CDFG, USFWS, and Aspen, and was observed as it left the access road.
- 2. Two new Swainson's hawk nests were identified within ½ mile of the project right-of-way during the subject period, bringing the total of active Swainson's hawk nests on Segment 3A to five to date. The Swainson's hawk is a State threatened species and requires a ½ mile buffer from construction. The following towers are on hold until the Swainson's nests fledge or concurrence in a buffer reduction is obtained from CDFG: Towers 29-32, 52-62, and 79-80. SCE is monitoring the nests twice per weeks and reporting any findings and status to CDFG and CPUC.
- 3. A Project Non-Compliance Report was issued on May 22<sup>nd</sup> for several concerns relating to the Windhub Substation construction site including night work, the water tank placement on private property, construction of the water storage pone, and allowing speeds over 15 mph without the necessary variance approvals.
- 4. While foundation drilling and concrete pouring had occurred at Tower 80 for two days, the CPUC EM learned that CDFG approval had not been granted for construction within a bird nesting buffer at this location and the nest was not monitored for disturbance. A raven nest was known in a pine tree within the tower disturbance area. Once the concrete pour was finished, a bucket truck was used to examine the nest and the two chicks in the nest were reported as dead. A Project Non-Compliance Report was issued on May 22<sup>nd</sup>.
- 5. 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

- 6. 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 (see Figure 5).
- 7. 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.
- 8. Capping of access roads for the protection of cultural resource sites is required in Segment 3A. To date, none of the access roads have been capped. The CPUC EMs have requested a timeline of when this is expected to occur.

Two Non-Compliance Reports were issued by the CPUC EM during the subject period for work being conducted within Segment 3A and at the Windhub substation. Non-Compliance activities for the project to date are summarized in Table 4 near the end of this report.

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

Dave Hacker, Dan Blankenship CDFG.

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

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

# TABLE 1 CPUC NTPS & ANF PERMITTING

(Updated 06/09/09)

	(Optated 00/09/09)					
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.		
#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.		

NTP #/ Permit	Date Requested	Date Issued	Segment #	Description
#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.
#20	03/20/09	04/02/09	2	R-8 marshalling yard, City of Palmdale.
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.
CPUC Addendum	03/12/09	4/23/09	3	Addition of a water well at Windhub Substation
CPUC Addendum & NTP	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.
#21	06/03/09	06/04/09	3	12 kV distribution line to Windhub Substation.
			ANF	PERMTTING
	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 06/09/09)

(Updated 06/09/09)						
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 separate		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).		
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.		

Variance Request	Date Requested	Date Issued	Segment #	Description
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 trough 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 shoo-fly 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.
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.

Variance Request	Date Requested	Date Issued	Segment #	Description
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 ≤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.
	05/28/09	Pending survey date	3	Installation and use of pond at Windhub Substation and two water tanks on private property.
	06/02/09	SCE to provide clarification	3A	Construction roads a Constr 49-52.

TABLE 3 TEMPORARY EXTRA WORKSPACE (TEWS) REQUESTS (Updated 06/09/09)

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.

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TEWS Request	Date Requested	Date Approved	Segment #	Description
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 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 x 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).

# **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 06/09/09)

Type	Date	Location	Description
Project Memorandum	03/25/08	Segment 1, Section 1	Deposition of soil into drainage at Soil Disposal site.
Project Memorandum	04/18/08	Segment 1, Section 1	Encroachment into Environmentally sensitive area during stringing operations.
Project Memorandum	04/30/08	Segment 1, yards	No clearance surveys of construction yards being conducted during bird nesting season.
Project Memorandum	05/21/08	Segment 1, Section 1	Inaccurate and incomplete resource maps.
Project Memorandum	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.
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.

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Type	Date	Location	Description
Non- Compliance	12/01/08	Segment 1	Construction vehicles crossing through flowing waters of Bouquet Creek to access the Pumpkin Yard.
Non- Compliance	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	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 $\frac{1}{2}$ to 3 gallon spill.
Incident	02/11/09	Segment 2	Unknown hydrocarbon soil stain approximately 1-square feet 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	<sup>1</sup> / <sub>4</sub> 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	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.
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	<sup>1</sup> / <sub>4</sub> 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.

Type	Date	Location	Description
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. <b>Incident report pending</b> .
Incident	5/02/09	Pottery Yard	2-3 ounce hydraulic spill at Pottery Yard.
Non- Compliance	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	I cup antifreeze spill.
Incident	5/19/09	Segment 3A	2-gallon hydraulic spill at Tower 42.
Non- Compliance	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	5/22/09	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.

# PROJECT PHOTOS



**Figure 1:** Shoofly road re-compacting at SF 4 in Section 1. Revegetation is planned for later this year.



**Figure 2:** Tower assembly on the ANF. Note the disturbance area at the first tower (helicopter construction) and at the second tower (conventional construction).



Figure 3: Tower section assembly at the Hydrant Yard to be flown into place with the Sky Crane.



**Figure 4:** Tubular Steel Pole (TSP) bases in place in Segment 3A



**Figure 5:** K-rail installed along the tortoise fencing surrounding the Windhub Substation site to protect off-site sand drifts in the area of the tortoise burrow.