



235 Montgomery Street, Suite 935, San Francisco, CA 94104-3002  
Tel. 415-955-4775, Fax 415-955-4776, www.aspeneg.com

**PROJECT MEMORANDUM  
SCE EL CASCO SYSTEM PROJECT**

**To:** Lynne Mosley, CPUC  
**From:** Vida Strong, Aspen Project Manager  
**Date:** January 5, 2010  
**Subject:** Report 19: December 20, 2009 – January 2, 2010

**CPUC ENVIRONMENTAL MONITORS (EM):** Lynn Stafford, Justin Wood

This report covers the two-week period from December 20 through January 2, 2009, including the holiday-shortened work weeks of Christmas and New Year's Day.

CPUC EM Justin Wood was on site December 22<sup>nd</sup>, 23<sup>rd</sup>, and 29<sup>th</sup>, 2009.

The SCE El Casco Project includes the following components:

- Construction of the new El Casco 220/115/12-kilovolt (kV) substation within the Norton Younglove Reserve, Riverside County, California;
- Replacement of approximately 15.4 miles of existing single-circuit 115 kV subtransmission lines with new, higher capacity single-circuit 115 kV subtransmission lines and replacement of support structures within existing SCE ROWs in the Cities of Banning and Beaumont and unincorporated Riverside County;
- Rebuilding 115 kV switchracks within Zanja and Banning Substations in the Cities of Yucaipa and Banning, San Bernardino and Riverside Counties, respectively;
- Installation of telecommunications equipment at the El Casco Substation and at SCE's existing Mill Creek Communication Site, San Bernardino County; and
- Installation of fiber optic cables within public streets and on existing SCE structures between the Cities of Redlands and Banning in San Bernardino and Riverside Counties, respectively.

The following compliance and construction activities occurred during the subject time period:

**EL CASCO SUBSTATION**

**Summary of Activity:**

The initial vegetation removal occurred at El Casco Substation site and at the new access road beginning February 23<sup>rd</sup>, and was reported in Report #1.

On May 8, 2009, SCE submitted the Notice to Proceed (NTP) request for the construction of the El Casco Substation and associated HDD bore work and conduit installation under San Timoteo Creek, and construction of three adjacent towers. NTP #5 for the El Casco Substation NTP request was granted by CPUC on August 31, 2009. On October 1, SCE submitted a Variance Request to allow the installation of two water tanks and above ground water piping to facilitate watering activities at the El Casco Substation site. This request was approved by CPUC on October 9, 2009.

During the subject period, work occurred Monday through Wednesday during the first week, and Monday through Thursday during the second week.

A V-ditch was in the process of being constructed on the south side (uphill) of the new access road (see Figure 1). Excavation had been completed for more than half the length of the access road by the end of the subject period, and concrete placement in the ditch had begun (see Figure 2).



Two areas within the footprint of the substation site have been identified by geotech soil testing to have underlying unstable soil. The westernmost of the two areas has been over-excavated, lined with water resistant fabric and an underlying gravel blanket, and has been mostly filled with firm material. A second over-excavation area further eastward was in the process of being lined with gravel and fabric during the subject period.

Terracing of the eastern ridge of the hillside has been completed. Several tension cable anchor systems have been constructed into four terraces on that hillside to put pressure on an underlying clay layer and thereby prevent land slippage. Work continued on the ten terraces being constructed on the western ridge. Excavation of the lower terraces and of the toe of the slope is now being accomplished with scrapers (see Figure 3).

Surveying for the box culvert to be placed under the access road near the entrance gate has occurred.

## **BANNING SUBSTATION**

### **Summary of Activity:**

The NTP for the Banning Substation work was granted by CPUC on August 13, 2009. MOD #1 to NTP #3 for additional work to be conducted at three existing transmission line poles located outside of the substation was approved by CPUC on August 26, 2009. On October 1, a Variance Request was submitted to allow alternate access into the Banning Substation. This request was approved by CPUC on October 15, 2009.

Grading and civil work continued within the northern section of the substation during the subject reporting period as permitted by weather and wet ground conditions. This area was previously unused by the substation and is being prepared to house the expansion of the substation required by the El Casco Systems Project. All work occurred within the perimeter fence of the existing substation. The preparatory work is nearing completion. Materials were delivered from Lincoln Street through the substation.

PAR Electrical Contractors, Inc. has been selected for the installation of new electrical equipment. Their work at the substation is scheduled to begin during the following reporting period.

## **ZANJA SUBSTATION**

### **Summary of Activity:**

The NTP request was submitted to CPUC by SCE on June 19, 2009 for the Zanja Substation work. The pre-construction compliance submittals have been approved and the NTP was issued on December 2, 2009. The report on the pre-construction clearance biological resources survey was prepared on November 30, 2009, and submitted to the CPUC EM on December 2, 2009. The report was field validated by the CPUC EM on December 3, 2009.

Construction continued during the subject period. The slope east of the substation has been removed in preparation for the expansion of the substation in that direction. The spoils were spread on adjacent SCE land (see Figure 4).

A temporary mobile transformer has been installed within the existing fenced substation site.

Construction of the concrete footings for new equipment has begun. A new power pole was installed near the southeast corner of the station.

## **MILL CREEK COMMUNICATION SITE**

### **Summary of Activity:**

The NTP request for the Mill Creek Communication Site was submitted to CPUC by SCE on June 19, 2009. The pre-construction compliance process is currently underway. Pending pre-construction compliance submittals for the Mill Creek element include: biological surveys, regulatory permit submittals, outstanding

hydrology submittals, geotechnical investigation submittals, as well as visual mitigation submittals. Potential EIR Addendum materials for work not previously analyzed in the EIR are also outstanding.

## **FIBER OPTIC CABLE (FOC) INSTALLATION**

### **Summary of Activity:**

The NTP request for the entirety of the fiber optic work (not including the HDD bore) was submitted to CPUC by SCE on March 5, 2009. However, on May 15, SCE requested authorization from the CPUC to commence with construction of the underground fiber optic elements in the Cities of Banning and Beaumont. This separate NTP request was due to pending pavement rehabilitation work in this area by the City of Beaumont. The request was granted as NTP #2 by CPUC on May 22, 2009. NTP #4 for the remainder of construction of the fiber optic elements of the El Casco System Project was approved by CPUC on August 27, 2009. On September 30, a modification request to NTP #4 was submitted to allow tree trimming activities along the FOC work. NTP #4 Mod #1 was approved by CPUC on October 2. On October 1, SCE submitted a Variance Request to allow work on two shoo-fly segments. This request was approved by CPUC on October 15, 2009.

Construction within the Cities of Banning and Beaumont began on June 16 at the western end of the 5000-foot underground conduit system within Sun Lakes community, and was completed in early August. The construction activity consisted of installation of two 5-inch conduits within a thirty-six-inch deep trench excavated into First Street in Beaumont and Sun Lakes Boulevard (contiguous roadways) in Banning. Seven manholes, for cable pulling purposes, also were installed in five-foot deep excavations.

Installation of the FOC segment between the Mentone and Zanja Substations began on September 17, 2009. The pre-construction biological survey by NRC had been completed on September 2 and 3, 2009, and reported on September 4. The CPUC validation was conducted on September 9, and reported on September 10, 2009.

The report for the pre-construction clearance biological survey for the Maraschino Substation to Banning Substation segment of the FOC route was completed on November 12, 2009, and reported on November 16, 2009. The CPUC validation was given on November 18, 2009.

The report for the pre-construction clearance biological survey for the Yucaipa to El Casco segment of the FOC route was prepared by NRC and given to the CPUC EMs on Wednesday of the subject week. The field validation also was completed by the CPUC EMs on Wednesday of the subject week.

During the beginning of the subject period, one SCE FOC crew completed work on the main FOC route within the Zanja to Yucaipa segment dead ending and clipping cable along Wildwood Canyon Road, Douglas Avenue, and Date Avenue. A second crew worked on the Banning to Maraschino segment installing support arms and hardware along Lincoln Avenue in Banning.

During the remainder of the subject period, both crews began installation on the Yucaipa Substation to El Casco Substation segment. Installation of support arms and hardware began near the El Casco Substation and continued westward on San Timoteo Canyon Road towards Redlands Boulevard.

## **115 kV SUB-TRANSMISSION LINE REPLACEMENT**

### **Summary of Activity:**

The NTP request for the 115 kV sub-transmission work was submitted to CPUC by SCE on March 3, 2009. The pre-construction compliance process is currently underway. Pending pre-construction compliance submittals for the sub-transmission element include: regulatory permit submittals, and outstanding hydrology, geotechnical, visual and biological survey submittals.

The report on the methods, results, and conclusions of the Pre-NTP Survey for Biological Resources on Segment 2 of the proposed Subtransmission Cable Route (the 115 kV alignment has been divided into seven segments) was submitted to SCE by NRC on July 27, 2009. This report has been field validated by the CPUC EM.

On September 22, 2009 SCE submitted a Variance Request to eliminate several geotechnical and hydrological mitigation measure requirements related to the 115 kV Subtransmission Line Element. Variance #5 was partially approved by CPUC on October 23. Variance #5 lessened some requirements depending on topography and site resources. In addition, the approval discussed that SCE now proposes the installation of a large numbers of new poles that were not anticipated in the original EIR and the need for further analysis by CPUC. The CPUC requested information from SCE regarding pole number and placements, as well as associated impacts, by construction segment. SCE provided an information package November 3, 2009. This information is under review by CPUC.

In December 2009, SCE requested to begin construction of Segment 3 while pending submittals and analysis for the other segments are being processed. Segment 3 is a one to one pole replacement within the Sun Lakes Development in Banning between Highland Springs Road and Highland Home Road. On December 9, 2009, a pre-NTP Biological Resource Survey Report was submitted by NRC to SCE for Segment 3 of the proposed Subtransmission Cable Route. This report was field validated by the CPUC EM on Thursday of the subject week. Other pre-construction submittals for Segment 3 have been approved and NTP #7 was issued by CPUC on January 5, 2010. Construction work on Segment 3 is currently scheduled to begin in February 2010.

### **CONSTRUCTION YARDS & OTHER WORKSPACE NEEDS**

Variance Request #1 for a laydown yard immediately south of SCE's existing Maraschino Substation in the City of Beaumont, Riverside County, was requested on April 1 and approved by CPUC on April 16, 2009. Construction of the laydown yard began on May 28 and was completed by June 12, 2009. The yard is currently being used for the storage of materials, including transmission towers.

No requests for additional construction yards or other workspace needs have been submitted to date.

### **ENVIRONMENTAL COMPLIANCE**

- Biological, cultural resource, paleontological, and other mitigation monitoring continued to be provided by NRC, LSA, and Paleo Solutions as needed. During the subject period, biological monitors were continually present during construction at both the El Casco and Zanja Substation and the FOC work areas. Paleontological monitors continued to be present at the El Casco Substation site at all times during construction. No environmental monitor was continually present at the Banning Substation site, because all work was contained within the substation and no environmental issues were involved.
- Equipment was continually checked for air pollution control compliance and drip pans were placed where necessary to contain leakages.
- Dust control was not an issue during the subject period because of earlier inclement weather and subsequent wet ground conditions. Water trucks continued to dampen roads and work areas where needed.
- A concrete truck wash-out basin has been established on the top of the hill where terracing is occurring. Other smaller temporary basins are being established as necessary.
- The contractor at the El Casco Substation has established several dewatering operations at the two over-excavation pits within the substation site. Temporary pumps and a mobile storage tank are in place and in operation. SCE plans to continue the dewatering operation in this area until the pits are lined with fabric and gravel blanket and refilled and compacted.
- The contractor at El Casco Substation is using access roads south of the substation site to reach the top of the hill within the substation site with vehicles, equipment, concrete trucks, and water trucks. These are pre-existing roads. There will be no disturbance of natural habitat off the roads.

- Security is now on duty at the entrance gate twenty-four hours, seven days per week.
- Variance #6 to enable a Portable Fuel Tank installation at the El Casco Substation site was approved on October 27, 2009. The design and proposed placement of the tank ensure protection from diesel spill. CPUC determined that no further biological and cultural resource surveys were necessary because of prior surveys in the area. The tank will not be installed until construction fuel needs are greater than at present.
- During the subject reporting period, fossils continued to be located, recovered, and processed at several locations at the El Casco Substation site. To date, a wide variety of plant, mammal, bird, and invertebrate material has been recovered. The fossils have been found during excavation in the eastern over-excavation pit, within excavation at the toe of the eastern ridge and in some of the hillside terraces. The fossils are within the San Timoteo Formation and thought to be between 0.9 and 6.1 million years old. The San Timoteo Formation is known to be particularly rich in significant fossil resources from the medial Pleistocene and the later Pliocene epochs. This formation, found throughout the San Timoteo Badlands, contains an important sequence of North American land flora and fauna of that time period. All excavation activity, especially in the areas containing the San Timoteo Formation, was continually monitored by paleontologists. Also material samples were collected from the terrace excavations and from all areas where fossils have been discovered. These samples were then processed by wet screening to uncover small and difficult to detect fossil material. These activities will continue as long as construction activity uncovers material within the fossiliferous San Timoteo Formation. When fossils were discovered, each area was immediately roped off, with construction activity temporarily diverted to other areas, while the paleontologists packaged and removed the fossils (see Figure 5). All parties, including the monitors, SCE staff, and the contractor have worked together to facilitate the recovery of fossils, and to minimize construction delay. CPUC/Aspen personnel have been kept informed of discovery events as they have happened. It is expected that fossil discovery and removal will continue for some time at the site. To date, the monitoring of construction activities and treatment of fossil discoveries have followed the El Casco Paleontological Treatment Plan.
- A rain event occurred during the first day of the subject week. Construction activities were delayed at some sites. Erosion and siltation prevention controls continued to be adequate. These controls included silt fencing, sandbagging, and straw wattling. In addition, the newly constructed access road and over-excavation areas served to retain run off water. No significant run off water or silt reached San Timoteo Creek from the substation construction site. Storm-related issues did not occur at any other Project work site.
- On December 9, 2009, a pre-construction clearance Biological Resource Survey Report was submitted by NRC to SCE for Segment 3 of the proposed Subtransmission Cable Route. This segment is within Sun Lakes Development in Banning between Highland Springs Road and Highland Home Road. The report contains text, an aerial map showing locations of sensitive biological resources with unique identifier numbers (UIN), a chart with detailed descriptions of the UINs, and several photographs of the segment. The report concludes that sensitive resources are present in the vicinity of Segment 3. Impacts to these resources can be minimized or avoided through the implementation of mitigation measures described in the El Casco System Project EIR, and the MMCRP, and by continuing to be consistent with the WRMSHCP. The chart describes individual recommendations for additional surveys, flagging, avoidance and monitoring for each identified resource. The report was field validated by CPUC EM, Lynn Stafford, on Thursday of the prior reporting period.
- The report for the pre-construction clearance biological survey for the Yucaipa to El Casco segment of the FOC route was prepared by NRC on December 15, 2009 and given to the CPUC EMs on December 16, 2009. The report describes surveys done by NRC biologists on December 2, 3, 8, and 9, 2009. The report determines that conditions have not changed since the pre-NTP survey in May and July, 2009. The report concludes that sensitive resources are present in the vicinity of this segment. Impacts to these resources can be minimized or avoided through the implementation of miti-

gation measures described in the El Casco System Project EIR, and the MMCRP, and by continuing to be consistent with the WRMSHCP. The field validation was completed by CPUC EMs, Lynn Stafford and Justin Wood, on December 16, 2009 of the prior reporting period. The Yucaipa to El Casco segment of the FOC is more than fourteen miles long and is expected to take at least four months to complete. Construction began during the subject reporting period.

Table 1 provides a summary of the Non-Compliance Reports (NCRs) and Project Memorandum (PM), and other incidents (i.e., spills, etc.) for the SCE El Casco System Project.

**TABLE 1**  
**NCRs, PROJECT MEMORANDUM, & OTHER INCIDENTS**  
(Updated 1-5-10)

<b>Type</b>	<b>Date Issued</b>	<b>Description</b>
PM #1	03/16/09	Failure to comply with Mitigation Measure B-18 before, during and after vegetation clearing at the El Casco Substation site. Construction equipment went outside of approved Project boundaries.
	8/21/09	A SCE internal noncompliance at the Banning Substation was issued for mobilization of the site before environmental training and biological pre-construction sweep were conducted.
PM #2	8/27/09	The initiation of construction activity before CPUC authorization and validation of the biological survey at the site of the NTP #3, MOD #1 pole work in Banning.

**NOTICE TO PROCEED (NTP) SUMMARY**

Table 2 summarizes the NTPs submitted, reviewed, and issued to date for the SCE El Casco System Project.

**TABLE 2**  
**NOTICES TO PROCEED**  
(Updated 1-5-10)

<b>NTP #</b>	<b>Date Requested</b>	<b>Date Issued</b>	<b>Description</b>
#1	02/20/09	02/23/09	Vegetation clearing activities at the future El Casco Substation Site located in the Norton Younglove Reserve Area in Riverside County.
#2	05/15/09	05/22/09	Construction of the underground fiber optic elements of the El Casco System Project in the Cities of Banning and Beaumont.
#3	04/10/09	08/13/09	Banning Substation
#3 Mod #1	08/21/09	08/26/09	Modify work within Banning Substation and add work at 3 existing transmission poles located outside of the substation.
#4	03/05/09	8/27/09	Fiber optic cable installation, remaining (see NTP #2).
#4 Mod #1	09/30/09	10/02/09	Tree trimming.
#5	05/08/09	8/27/09	El Casco Substation construction.
#6	06/19/09	12/02/09	Zanja Substation
#7	12/17/09	1/05/10	Segment 3 of 115 kV sub-transmission element.
	03/03/09	Under Review <sup>1</sup>	115 kV sub-transmission lines replacement.
	06/19/09	Under Review <sup>1</sup>	Mill Creek Communication Site

1. Compliance submittals pending.

**VARIANCE & TEWS REQUEST SUMMARY**

Tables 3 and 4 summarize the Variance and Temporary Extra Workspace (TEWS) Requests submitted, reviewed, and issued to date for the SCE El Casco System Project, respectively.

**TABLE 3  
VARIANCE REQUESTS  
(Updated 1-05-10)**

<b>Variance #</b>	<b>Date Requested</b>	<b>Date Issued</b>	<b>Description</b>
#1	04/01/09	04/16/09	Usage of an empty fenced lot immediately south of SCE's existing Maraschino Substation, Beaumont, Riverside County, as a laydown yard to support Project construction.
#2	10/01/09	10/09/09	Placement of two water tanks and above ground pipe to feed water needs at the El Casco Substation site.
#3	09/30/09	10/15/09	FOC Temporary Circuitry: Banning and Calimesa Shoo Flies.
#4	09/30/09	10/15/09	Alternate Access to the Banning Substation from John Street.
#5	09/22/09	10/23/09	SCE has asserted within the variance request that several Geo & Hydro Mitigation Measures should not be required for the 115 kV Subtransmission Line Element.
#6	10/23/09	10/27/09	Installation of a Portable Fuel Tank at the El Casco Substation site.
#7	10/27/09	10/29/09	Project Description change from underground to overhead installation for fiber optics circuitry along Colton Avenue in the vicinity of the Mentone Substation.
#8	10/29/09	10/29/09	Removal of five Fremont cottonwood trees that are impacted by the construction of the access road to the El Casco Substation site.

**TABLE 4  
TEMPORARY EXTRA WORK SPACE REQUESTS  
(Updated 1-05-10)**

<b>TEWS #</b>	<b>Date Requested</b>	<b>Date Issued</b>	<b>Description</b>
#1	04/17/09	04/23/09	Fiber Optic material storage at the pre-existing Zanja Substation, Yucaipa, San Bernardino County
#2	07/20/09		Staging area in a vacant lot north of First Street and west of Highland Springs Road.

## PROJECT PHOTOGRAPHS



**Figure 1:** A V-ditch is being constructed on the south side (uphill) of the new El Casco Substation access road. The photo faces eastward.



**Figure 2:** Concrete placement in the V-ditch alongside the El Casco Substation began during the subject period.





**Figure 3:** Excavation of the lower terraces at the El Casco Substation site is now being accomplished with scrapers. The photograph is shows the lower portion of the western ridge, and faces southward.



**Figure 4:** Construction continued during the subject period on the expansion and upgrading of the Zanja Substation (in the distance). The slope east of the substation has been removed in preparation for the expansion and has been spread on adjacent SCE land in the foreground where construction materials are being stored. The photograph faces westward.



**Figure 5:** During the subject reporting period, fossils continued to be located, recovered, and processed at several locations at the El Casco Substation site. When fossils were discovered, construction activity was temporarily diverted to other areas, while paleontologists packaged and removed the fossils. Also material samples were collected from discovery sites. These samples were then processed by wet screening to uncover small and difficult to detect fossil material. In this photograph, a large mammal bone fragment has been packaged for removal.