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**PROJECT MEMORANDUM  
SCE EL CASCO SYSTEM PROJECT**

**To:** Lynne Mosley, CPUC  
**From:** Vida Strong, Aspen Project Manager  
**Date:** January 27, 2010  
**Subject:** Report 21: January 10, 2010 – January 23, 2010

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

This report covers the two-week period from January 10 through January 23, 2009. The Project essentially was shut down during the week of January 18 through January 23 due to a series of four storms that produced heavy amounts of rain, some snow, elevated stream levels, and extremely muddy and unstable substrate conditions at most work sites.

CPUC EM, Justin Wood, was on site January 22<sup>nd</sup>, 2010.

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 during the week 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 Saturday of the first week. All work was cancelled during the second week except visitations by the contractor to examine erosion control measures, and to implement pumping of runoff water. During the first week, construction continued on drainage V-ditches south of the Project trailers, and on a culvert leading to San Timoteo Creek around the western side of the substation site.



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.

During the first week of the subject period, work began on the box culvert across the access road near the entrance gate (see Figure 1). Concrete placement 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.

Two subcontractors worked on-site during the first week of the subject period. Construction is occurring in a portion of the substation previously unused by the substation that is being prepared to house the expansion of the substation required by the El Casco Systems Project. Both civil and structural steel work occurred. The new foundation is now in place. Only a skeleton crew was present during the rain and snowed out second week. All work occurred within the perimeter fence of the existing substation. Materials were delivered from Lincoln Street through the substation.

## **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 first week of the subject period. Work included civil grading and continuation of the building of two concrete V-ditches.

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

No work occurred during the second week of the subject period except erosion control inspection. More than four inches of snow covered the site.

## **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 December 16, 2009. The field validation also was completed by the CPUC EMs on December 16, 2009. The CPUC EMs agreed with the conditions reported and with the recommendation of the Survey Report.

The SCE FOC crews continued work Monday through Saturday on the Yucaipa to El Casco Segment during the first week of the reporting period. Limited FOC work occurred during the second week of the subject period. The work performed during the subject period consisted of the pulling and installation of cable along San Timoteo Road.

A crew worked on the Banning shoo-fly near Bluff Road in Banning on Sunday, January 10<sup>th</sup> completing the replacement of damaged fiber wrap. The Sunday work was authorized by CPUC in order for the work to be finished during the scheduled line outage.

## **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, a pre-NTP Biological Resource Survey Report was submitted by NRC to SCE for Segment 3 of the proposed Subtransmission Cable Route which was subsequently field validated by one of the CPUC EMs. Other pre-construction submittals for Segment 3 have also been approved and NTP #7 issued by CPUC on January 5, 2010. Construction of Segment 3 is anticipated to start 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 week, 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 maintained by water trucks at the El Casco Substation and Zanja Substation work sites. Dust was an issue only during the first week of the subject period because of the wet storm conditions during the second week.
- Concrete truck wash-out basins are established as necessary in areas where concrete placement occurs.
- Security is now on duty at the entrance gate to the El Casco Substation site twenty-four hours, seven days per week. At some time in the future, more security may be assigned as construction materials are moved to the substation area.
- The entrance to the mobile water tower next to San Timoteo Canyon Road north of El Casco Substation that is one of the water sources for the Project is now marked with safety signs, as is San Timoteo Canyon Road for considerable distance in both directions from the entrance.
- 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, no additional fossils were discovered 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, has been continually monitored by paleontologists. Also material samples have been 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. 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. During the subject period, a SCE representative gave a presentation of the paleontological discoveries and treatment to date to a group of Riverside County staff. The Project's Paleontological Plan currently is being modified to include a Riverside County museum as a possible depository for project fossils.

- On Saturday of the prior week, the SCE Project Manager requested permission to work on Sunday of the first week of the subject reporting period in order to complete the fiber wrap replacement at the eastern end of the Banning shoo-fly. Unanticipated delay prevented the work from being completed on Saturday. Immediate completion of the project is necessary to avoid scheduling another power outage in the area. The activity requested was of low sound value and was located at least 400 feet away from the nearest residence. The request was granted by the CPUC on the condition that a formal request for variance be submitted during the first week of the subject period. Variance Request #9 detailing the Sunday work was submitted by SCE January 11 and approved by the CPUC January 12, 2010.
- It has previously been noted by CPUC that the disturbed area at the Zanja Substation work site may exceed one acre. A WDID permit from the State Water Resources Control Board was not requested for this site by SCE because it originally was thought to produce a ground disturbance of less than one acre, thus voiding the need for a permit. During the prior week, CPUC EM Lynn Stafford determined that the disturbed area currently is approximately 1.75 acres, and may increase with the future improvement to the access road. The disturbed area includes a field upon which spoils were spread, and which appears to be used as a staging area, and a portion of the pre-existing substation. Project Memorandum #3 was issued on January 14 for use of the subject area as a parking and staging area. SCE subsequently agreed that the area of project disturbance has exceeded one acre. Variance Request #10 was submitted on January 14 to request approval to use the subject area, and was approved by CPUC on January 19. SCE also is applying for a WDID permit.
- SCE has produced a Noise Analysis/Management Plan for the El Casco Substation and Access Road sites, prepared by Chambers Group. This plan involves the construction of sound and visual barriers before the 2010 nesting season to minimize disturbance of nesting species in the San Timoteo Creek riparian area. The Plan also provides protocol for monitoring of sound levels and recommendations for adjustments to the construction schedule to minimize disturbance.
- During the second week of the subject reporting period, four storms occurred throughout the project sites. At least seven inches of rain was recorded at El Casco Substation. The higher portions of the Project area, including Beaumont, Banning, Calimesa, Yucaipa, and Mentone received up to four inches of snow in addition to significant amounts of rain. Numerous erosion control problems were observed at El Casco Substation. The partially completed box culvert was inundated with water, which then poured into San Timoteo Creek (see Figure 1). Silt fencing was compromised in several locations (see Figure 2). Also, the swollen San Timoteo Creek eroded its bank, threatening to destroy some of the silt fencing (see Figure 3). Erosion gully formation occurred in several areas including the terraces, access roads, and engineered slopes. None of the erosion was severe enough to require emer-

gency measures, but much remedial action will need to occur soon before the next predicted series of storms. At Zanja Substation, erosion control measures were mostly effective, but some erosion gully formation was observed (see Figure 4). Banning Substation had adequate erosion control measures in place, and the FOC work sites had no erosion problems.

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 01-27-10)

<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.
PM #3	01/14/10	Use of an unapproved area for staging and parking at the Zanja Substation site.

**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 01-27-10)

<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 subtrans 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 01-27-10)**

<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.
#9	01/11/10	01/12/10	Sunday work on FOC shoo-fly segment during scheduled line outage.
#10	01/14/10	01/19/10	Use of the area east of the Zanja Substation fence line for parking and staging purposes.

**TABLE 4  
TEMPORARY EXTRA WORK SPACE REQUESTS  
(Updated 01-27-10)**

<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:** The partially completed box culvert at the El Casco Substation access road was inundated with stormwater, which then poured into San Timoteo Creek. The photograph faces southeastward.



**Figure 2:** Silt fencing and other erosion control devices were compromised in several locations at the El Casco Substation site. The photograph faces northwestward, with San Timoteo Creek in the background.





**Figure 3:** The swollen San Timoteo Creek eroded its bank, threatening to destroy some of the silt fencing at the El Casco Substation site. The photograph faces northwestward.



**Figure 4:** At Zanja Substation, erosion control measures were mostly effective, but some erosion gully formation was observed. In the photograph, which faces northeastward, runoff water is shunted around the substation (on the left) through two newly constructed V-ditches.