Administrative Draft PEA Chapters 1, 2, and 3 of SCE's Responses to CPUC Data Gaps

Valley South Subtransmission Project (VSSP)

#	CPUC Comment/Question	SCE's Response and/or Reference to Reformatted PEA
General		
1-1	Please provide GIS data and/or detailed project maps (e.g., road story maps) showing the existing (to be modified or removed) and Proposed Project elements and disturbance areas, including but not limited to: • existing poles to be modified (utilize unique ID numbers) • existing poles to be removed (utilize unique ID numbers) • new subtransmission line route • specific locations of each new pole and identify pole type, including light weight steel (LWS), wood guy stub, wood, and tubular steel poles (TSPs) • temporary staging yards • laydown areas • pulling/tensioning/splicing/ stringing sites • new and existing access roads to be utilized (e.g. new permanent road, new temporary road, existing road - permanent improvements, existing road - temporary improvements, existing paved road, existing dirt/gravel road, and overland access) • location of all underground portions and vaults, and • location and approximate size of disturbance for each vegetation type being removed.	SCE's GIS files include the requested information and are in the attached file entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip.
Chapter 2. Project Purpose and Need and Objectives		
1-2	Would the proposed upgrades provide for a capacity increase? If so, how much in megavolt-ampere (MVA) and megawatts (MW)? Please state, if the Proposed Project does not increase capacity.	The proposed project would create an additional 115 kV source line into the Electrical Needs Area. The area is served through three existing 115 kV source lines and upon completion of the proposed project, the electrical demand would then be supplied through four 115 kV sources lines. This additional line is required to address insufficient capacity under N-1 abnormal conditions (unplanned outages of one of the three existing 115 kV lines). With the proposed project, under the same N-1 abnormal conditions, the area's electrical demand would have sufficient 115 kV source line capacity because there would be three lines still in-service. The proposed 115 kV line would increase the overall source subtransmission line capacity by 218 MVA under normal system conditions and 294 MVA under abnormal system conditions. The proposed project would provide the Electrical Needs Area with additional 115 kV source line capacity under both normal and abnormal system conditions. Please refer to Chapter 3, Section 3.2

<table>
<tr>
<td>1-3</td>
<td>Section 2.2, Page 2-9, first sentence of last paragraph, states that during peak electrical demand and abnormal conditions a mitigation plan has been identified to reduce the amount of electrical demand at risk. Please provide additional information about what would occur under this mitigation plan, as the current description is unclear. It is suggested that a numerical example be provided to illustrate the plan and how the numbers in Table 2.3, Electrical Demand at Risk, were generated.</td>
<td>
Due to the gap in the proposed Operating Date and the identified Need Date of the Proposed Project, SCE has identified 115 kV line overloads that are projected to occur under peak conditions without the Proposed Project in-service. With the existing electrical facilities, the only means to prevent these projected overloads would be to limit the amount of electrical demand served by the existing 115 kV lines. This would be achieved by interrupting electrical service at the distribution substations served by the existing 115 kV lines. To minimize the amount of electrical demand that would need to be interrupted, SCE has developed a proposed mitigation plan that would reduce the amount of electrical demand to be interrupted during the years 2016-2019.
Currently Stadler Substation, within the Valley South 115 kV System, is provided power through the following two 115 kV lines: Moraga-Stadler-Stent 115 kV Line and Stadler-Tenaja 115 kV Line. The proposed mitigation plan would be to temporarily reconfigure the 115 kV electrical system by opening a circuit breaker at Moraga Substation on the Moraga-Stadler-Stent 115 kV Line. In doing so, all the power to Stadler Substation would be forced to flow from Valley Substation to Stadler Substation through the one remaining line into Stadler Substation. This action would be performed by SCE Grid Operations personnel through the use of remotely operated automation equipment. Isolating Stadler Substation from Moraga Substation results in a reduction of power provided through the identified overloaded lines (Valley-Sun City, Valley-Auld, and Valley-Auld-Triton 115 kV Lines) all of which provide power through Moraga Substation and ultimately to Stadler Substation. As those three lines would no longer be providing any of the power required to serve the electrical demand at Stadler Substation, the demand on those three lines would be reduced.
This solution is only a mitigation plan and would be temporarily employed only under specific conditions as needed. The reconfiguration of the 115 kV system would temporarily reduce the reliability of electrical service to Stadler Substation because it would then be served by only one 115 kV line instead of the normal configuration of two 115 kV lines. Under this proposed mitigation plan, the amount of electrical demand that would need to be interrupted to prevent the projected 115 kV line overloads would be eliminated in 2016 and reduced in 2017-2019.
The Valley South 115 kV System is a network of interconnected 115 kV lines which provides electrical service to 115 kV distribution substations. To provide reliable electrical service, all but one of SCE's distribution substations in the Valley South 115 kV System are provided electrical service through a minimum of two 115 kV lines. The exception is Ivyglen Substation which has a second line (Valley-Ivyglen 115 kV Line) planned to be operational by 2017. This proposed mitigation plan, to temporarily reduce the number of 115 kV lines providing service to Stadler Substation to prevent the 115 kV line overloads identified in the VSSP PEA, is not a long-term solution and is only planned for use as needed until the Proposed Project is constructed and placed in-service.
As the only way to mitigate the identified 115 kV line overloads is to reduce the amount of electrical demand served by them (through interruption of electrical service at the substations they serve), the proposed mitigation plan would serve to reduce the amount of electrical demand required to be interrupted.
<u>PEA Update: Table 2.3 was updated in SCE's final PEA</u>
Below is an updated Table 2.3 based on SCE's 2014-2023 forecast.
<table>
<tr><th colspan="5">Load-At-Risk</th></tr>
<tr><th></th><th colspan="2">N-1 Conditions</th><th colspan="2">Basecase Conditions</th></tr>
<tr><th>Year</th><th>Without Mitigation</th><th>With Mitigation</th><th>Without Mitigation</th><th>With Mitigation</th></tr>
<tr><td>2016</td><td>5 MVA</td><td>0 MVA</td><td>0 MVA</td><td>0 MVA</td></tr>
<tr><td>2017</td><td>10 MVA</td><td>5 MVA</td><td>0 MVA</td><td>0 MVA</td></tr>
<tr><td>2018</td><td>25 MVA</td><td>15 MVA</td><td>10 MVA</td><td>0 MVA</td></tr>
<tr><td>2019</td><td>40 MVA</td><td>30 MVA</td><td>15 MVA</td><td>15 MVA</td></tr>
</table>
The table below illustrates the how the proposed mitigation plan impacts the power flow values on the three identified overloaded lines under abnormal conditions. The example provided is for the worst-case overload condition (outage to Valley-Auld 115 kV Line).
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Abnormal (N-1) Conditions

Without Mitigation			**Year**			
			2016	**2017**	**2018**	**2019**
			N-1 Line Capacity (MVA)			
Line Outage	**Remaining Lines In-Service**		**294**	**294**	**294**	**294**
Valley-Auld	Valley-Sun City	Line Loading (MVA)	299	302	312	318
		Utilization	**102%**	**103%**	**106%**	**108%**
	Valley-Auld-Triton	Line Loading (MVA)	286	287	296	305
		Utilization	97%	98%	**101%**	**104%**
Amount of electrical demand to be interrupted to eliminate overloads -->			5 MVA	10 MVA	25 MVA	40 MVA

With Mitigation			**Year**			
			2016	**2017**	**2018**	**2019**
			N-1 Line Capacity (MVA)			
Line Outage	**Remaining Lines In-Service**		**294**	**294**	**294**	**294**
Valley-Auld	Valley-Sun City	Line Loading (MVA)	286	298	306	312
		Utilization	97%	**101%**	**104%**	**106%**
	Valley-Auld-Triton	Line Loading (MVA)	272	282	289	298
		Utilization	93%	96%	98%	**101%**
Amount of electrical demand to be interrupted to eliminate overloads -->			0 MVA	5 MVA	15 MVA	30 MVA

The first table illustrates the forecasted line loading values under abnormal conditions. Interruption of electrical service to SCE customers would occur to prevent the overloads from occurring. In the second table, with the implementation of the proposed mitigation, the amount of electrical demand at risk of interruption required to prevent the overloads is reduced. This can be seen by a comparison of the identified values of electrical demand required to be interrupted to eliminate the overloads.

Chapter 3. Project Description

1-4

Section 3.5.1 provides a description of the proposed subtransmission line route, which is also depicted in Figure 3.2. A few points of clarification are required. (1) It is stated that two existing LWS poles (one located on the south side of Benton Road approximately 90 feet west of Leon Road and one located on the east side of Leon Road at the Allen Road intersection) would include pole head reconfiguration from existing back-to-back post insulator construction to double dead-end arm construction. Allen Road is not shown on Figure 3.2, and only one inset text box (at Benton/Leon) indicates the pole reconfiguration. Suggest correcting Figure 3.2. (2) It should be clear which pole type in Figure 3.3 would apply along the various segments of the proposed alignment.(3) No detailed breakdown is provided to specify the length of the 115 kV alignment in existing right-of-way (ROW) versus new ROW, and no information on existing ROW widths or indications where additional ROW width would be required. Furthermore, due to the thickness of the red line (Proposed 115 kV Subtransmission Line) in Figure 3.2, it is not

Reference to reconfiguration of the LWS pole at Leon/Allen was included in error and has, subsequently, been removed.

Initial design at this location indicated that reconfiguration of this pole head would be necessary; further review proved this not to be the case and was (correctly) not included in Figure 3.2 but was (in error) not removed from the description in Section 3.5.1. As reference to reconfiguration of the Leon/Allen LWS pole should not have been included, it has, subsequently, been removed. Section 3.5.1 of SCE's final PEA has been updated to correctly describe the pole head reconfiguration.

PEA Update: Second to last paragraph in Section 3.5.1.2 was updated with revised paragraph below.

New construction would include one wood guy stub pole located on the north side of Benton Road approximately 90 feet west of Leon Road. Additionally, one existing LWS pole (located on the south side of Benton Road approximately 90 feet west of Leon Road) would include pole head reconfiguration from existing back-to-back post insulator construction to double dead-end arm construction (see Figure 3.2 Subtransmission Source Line Route Description). Based on preliminary engineering, an approximate combined total of 81 existing wood, LWS and TSP structures would not require structure replacement. Segment 2 of the Proposed Project is an existing double-circuit 115 kV subtransmission line approximately 3.4 miles in length.

(1) This information is provided in the GIS files we are sending to the CPUC with submittal

(2) (a) This information is provided in the GIS files we are sending to the CPUC with submittal

(b) Refer to Chapter 3, Section 3.6 Right-Of-Way Requirements, for a description of Right-Of-Way ownership

	possible to see if the alignment is following an existing ROW without comparing to Figure 1.2 or referring to the written description. (a) Please provide additional information (e.g. table format by milepost) detailing the length of alignment in existing ROW, new ROW, existing ROW widths, and new ROW widths with implementation of the Proposed Project. (b) Describe ROW ownership. (c) If new ROW is required, describe how it would be acquired and approximately how much would be required (length and width). (d) List all properties likely to require acquisition.	(c) Width of the easements are determined by engineering. Length is determined by the parcel size which varies throughout the project. (d) All properties to be acquired are identified in the GIS as proposed easements. Property owner names and APN are also in the GIS maps.
1-5	Section 3.5.1, Page 3-7, last full paragraph, states "The new 115 kV Subtransmission Line would rise to an overhead position via a Riser TSP that would be located on McLaughlin Road. To accommodate this overhead transition of the new 115 kV subtransmission line at this location, approximately five existing light weight steel (LWS) poles would need to be removed and replaced with one new Riser TSP and four LWS poles." Please provide a figure to show this reconfiguration, indicating existing and proposed infrastructure and locations.	SCE has confirmed that portions of McLaughlin Road are private. Between Menifee and Briggs Road is a private road (SCE access road/farm road). SCE's final PEA has been updated this clarification in Section 3.5.1. SCE's GIS files include the location of the new Riser TSP and two LWS poles. Additionally, in the Aesthetics Section 4.1 of the PEA, KOP 1 displays this area along the private road displaying the before and after photos. **PEA Update: PEA has been updated replacing McLaughlin Road with Private Road (SCE access road/farm road). Some areas still reference McLaughlin Road where it is being analyzed in a regional setting (i.e., Transportation).**
1-6	Figure 3.2, Page 3-11, provides a location map for the Project; however a general description of Land Uses within the project site (e.g., residential, commercial, agricultural, recreation, vineyards, farms, open space, number of stream crossings, etc.) is not provided. Please describe Land Uses within the project area, including a description of the existing subtransmission lines identified in Figure 3.2. The local system to which the Proposed Project relates should be described, including all relevant information about substations, transmission lines and distribution circuits. In Table 1.2, PEA Checklist Key, it is indicated some of this information may be included in Section 4.10; however, such information should also be included in the Project Description.	Land Use information is provided in Section 4.10, Land Use and Planning. As discussed in Chapter 3, Project Description, Section 3.2 Existing System the local system to which to the proposed project relates is described including all relevant information about substations, subtransmission lines, and distribution circuits. Also, See Chapter 3, Figure 3.2, Subtransmission Source Line Route Description illustrating the subtransmission lines.
1-7	Section 3.5.2, Page 3-19, fourth paragraph, states that the Proposed Project would use approximately 23 new wood guy stub poles. Please specify locations (GIS data) and note if any guying would likely be required across a road.	SCE's GIS files include the approximate location of the new wood guy stub poles. The GIS files are in the attached file entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip. Eighteen locations would require guying across the road.
1-8	Section 3.5.2, Page 3-19, fourth paragraph, states "Where mechanical loads to be imposed on the poles are greater than can be safely supported by the poles, additional strength shall be provided by the use of guy wires and anchors…The down guy wires would be attached to the wood guy stub pole and a 10-foot anchor rod(s), which has been installed in the ground." Have any areas been identified where mechanical loads would require such an installation? What would be the temporary and permanent impact area associated with installation of the 10-foot anchor rod(s)?	Areas have been preliminarily identified where mechanical loads would require guying. These locations will be included in the GIS files based on preliminary engineering. The impact to the area associated with installation of the 10-foot anchor rod would be permanent. Locations where guy cables and anchor rods are to be installed would be kept clear of vegetation and would include up to a 10-foot radius from the location where the anchor rod enters the ground.
1-9	In reviewing Google Earth, Pines Airpark (0.5 miles east) and French Valley Airport (6.3 miles south-southeast) are the closest airports identified in the vicinity of the Proposed Project. Section 3.5.2, Page 3-20,	Pines Airpark (8CA5) is a state-permitted private airport with no published instrument approach. As such, the safety of the airspace is the responsibility of the owner. Its airspace is not protected by the FAA or the State of California, and FAA filing is not required.

	states that SCE would file notifications with the FAA for approximately 74 poles/towers based on preliminary design and proximity to the French Valley Airport. What about Pines Airpark?	
1-10	Section 3.5.2, Page 3-19 (and Section 3.5.3.1.4, Page 3-22), states that to accommodate the 115 kV subtransmission facilities some of the existing 12 kV and 33 kV distribution facilities would be modified, and approximately 230 wood poles would need to be removed. These aspects of the Proposed Project need to be fully described and disclosed. For example, Figure 3.2 does not provide detail on where wood pole removals would be occurring on the distribution facilities. Please provide GIS data and/or detailed project maps (e.g., road story maps) showing these project details (see DR 1-1).	The estimated 230 distribution wood poles would be removed along the subtransmission route and replaced with subtransmission poles. These areas have been identified in Chapter 3, Section 3.5.2 and have been included in the GIS files. Until final engineering is completed for tap-lines and break-offs the specific number of poles that need to be replaced, removed or installed in this area is unknown.
1-11	Figure 3.3, Page 3-15 to 3-18, provides “typical” drawings of subtransmission structures. No photos of existing similar structures are provided. Please provide, if available.	Aesthetics Section 4.1 includes Before, After (visual simulations), and Context Photos. The GIS information provided to the CPUC also includes graphics depicting the pole head configurations. Refer to Chapter 3, Figure 3.3 Typical Subtransmission Structures for structure detail.
1-12	Figure 3.3, Page 3-15. Please explain what is meant by “back to back post insulator”, which should clarify why these poles look different. Also, there appears to be redundancy within this figure, as the same two poles appear to be presented multiple times, although it looks like one is slightly different even though the title is the same (titles also repeat). If there are differences, please clarify in the titles and/or make labels bold to show differences.	“Back to back post insulator" pole heads are a typical configuration associated with poles that support two high-voltage circuits of conductor; the term refers to the "mirror image" view created when insulators with the required horizontal spacing are matched with the same above-ground height and spacing on the opposite side of the pole. While the "back to back post insulator" configuration is exactly the same and may appear redundant for several examples, the differences found on each of these poles relates to the lower conductors (i.e., underbuild) on the poles and the various types of equipment or conductors (e.g., transformers, switches, distribution) either existing or planned for the Proposed Project. **PEA Update: For clarification, Figure 3.3, Page 3-15 was updated to include the second paragraph above. It can be found in the lower right-hand corner of each page of Figure 3.3.**
1-13	In Figure 3.3, Pages 3-15 to 3-18, a note of “FRC/COMM” appears with a footnote of “FRC on LWS only”. Please explain these notes. Describe if other infrastructure would likely be collocated with the conductor (e.g., fiber optics, etc.); if so, provide conduit diameter of other infrastructure.	Figure 3.3 portrays the various "pole head" configurations of wood and Light Weight Steel (LWS) poles that may be used for the Proposed Project. Since the configurations of wood and LWS poles are similar, the two pole types have been combined for illustration purposes. While Fault Return Conductor (FRC) may be present on either type of pole, its required application specifically relates only to LWS poles (attachment to wood poles may be necessary in order to maintain continuity of grounding applicable to LWS pole installations). The terms in the figures are combined to form "FRC/COMM" for ease of identification; fiber optics, cable, and telephone lines are represented by the term communications (COMM); this infrastructure would be transferred from the existing distribution alignment to the proposed Subtransmission alignment; it would be present where needed and applicable (regardless of pole composition) along the line route. The diameter of any other infrastructure that would likely be collocated with the conductor would be the same as the diameter of the existing conductor (typically range from 1/4" to 2", depending on the type of conductor). **PEA Update: For clarification, Figure 3.3 in SCE’s final PEA was updated to include the definition of FRC – Fault Return Conductor and COMM – Communications. The definitions can be found at the lower left-hand corner of each page of Figure 3.3. FRC and COMM were also added to the Acronyms and Abbreviations list.**
1-14	In Figure 3.3, Pages 3-15 to 3-18, and Table 3.1, Pages 3-14, the approximate diameter at the pole base is provided; however, the text on Page 3-19 simply states that the wood poles, LWS poles, and wood guy stub poles would “taper to the top of the pole”. Please add the approximate diameter at top of pole to the “typical” drawings.	Wood, LWS, and wood guy stub pole “top” diameters will range from approximately 10” to 16” and will be reflected in Figure 3.3 as requested. Item 1-14 identifies the need to update Figure 3.3 with approximate pole top diameters; the diameters will range from 10" to 16". **PEA Update: For clarification, Figure 3.3, of SCE’s final PEA was updated to include the pole top diameters. The pole top diameters can be found at the lower right-hand corner of each page of Figure 3.3.**

1-15	In the alignment description provided in Section 3.5.1.2, as well as in the description of the subtransmission line conductor/cable (Section 3.5.3.1.2), please provide specific information at highways, rivers, or special crossings.	**PEA Update: To address specific information at highways, rivers, or special crossings, specific information on the use of guard structures and locations was developed and was included in the Final PEA along with Table 3.6 Guard Structure Locations:**

3.7.2.3.3 Guard Structures

SCE estimates that approximately 31 guard structures would need to be constructed at 17 locations along the proposed route. Guard structures are temporary facilities that would typically be installed at transportation, flood control, and utility crossings for wire-stringing/removal activities. Typical guard structures are standard wood poles that are temporarily installed prior to stringing operations to stop the movement of a conductor should it momentarily drop below a conventional stringing height. Depending on the overall spacing of the conductors being installed, approximately two to four guard poles would be required on either side of a crossing. In other locations, i.e., low-traffic roads or shared driveways, SCE would use modified boom trucks to protect the crossing and/or flagmen with would be used to for control traffic control. At highway crossings, temporary netting could be installed if required. The guard structures would be removed after the conductor is secured into place. In some cases, specifically equipped boom trucks could be substituted for guard structures because they would already be located at the site for general construction activities. A biological monitor would assist with the placement of the guard structures to ensure impacts to special status resources are avoided to the extent feasible. Applicant Proposed Measures (APMs), described in Table 3.13, would limit impacts to special status resources to less than significant levels.

Decisions regarding whether to use guard structures or boom trucks would be determined during construction. For construction of the Proposed Project, SCE would work closely with the applicable jurisdiction to secure the necessary permits to string conductor over the applicable infrastructure.

Table 3.6 Proposed Guard Structure Locations lists the locations and type of guard methods that is expected to be employed at each of the locations along with the type of crossing to be protected. These locations and methods are approximate and subject to change based on final engineering.

Table 3.6 Guard Structure Locations

Guard Structure Number	Location	Guard Method[1] GS=Guard Structure BT=Boom Truck TC=Traffic Control	Crossing Type OH=Overhead
1	West side of Briggs Rd, South of McLaughlin Rd	GS & TC	Road
2	East side of Briggs Rd, South of McLaughlin Rd	GS & TC	Road
3	West side of Briggs Rd and north side of Case Rd	GS	Road
4	East side of Briggs Rd and north side of Case Rd	GS	Road
5	North side of Grand Ave, East of Leon Rd	GS	Road
6	South side of Grand Ave, East of Leon Rd	GS	Road
7	Leon Rd at train track at~700 feet south of Grand Ave	GS/BT	Train Track

			8	East side of Leon Rd, North of Simpson Rd	GS	Road	
			9	West side of Leon Rd, South of Simpson Rd	GS	Road	
			10	West side of Leon Rd, North of Domenigoni Pkwy	GS/TC	Road & Street Light	
			11	West side of Leon Rd, South of Domenigoni Pkwy	GS/TC	Road & Traffic Signal	
			12	North side of Holland Rd at Leon Rd	GS	Road	
			13	South side of Holland Rd at Leon Rd	GS	Road	
			14	East side of Leon Rd at north side of Wickerd Rd	GS	Road	
			15	East side of Leon Rd at south side of Wickerd Rd	GS	Road	
			16	East side of Leon Rd, North of Scott Rd	GS	Road & Distribution OH	
			17	West side of Leon Rd, South of Scott Rd	GS	Road & Distribution OH	
			18	West side of Leon Rd, ~700 feet North of Jean-Nicholas Rd	GS/TC	Road	
			19	East side of Leon Rd, ~575 feet North of Jean-Nicholas Rd	GS/TC	Road	
			20	East side of Leon Rd at north side of Jean-Nicholas Rd	GS/TC	Road	
			21	East side of Leon Rd at south side of Jean-Nicholas Rd	GS/TC	Road	
			22	Old Leon Rd at North Corner of Winchester Rd & Max Gillis Blvd	GS/TC	Road	
			23	Old Leon Rd at South Corner of Winchester Rd & Thompson Rd	GS/TC	Road	
			24	North side of Benton Rd at Leon Rd	GS/TC	Road	
			25	South side of Benton Rd at Leon Rd	GS/TC	Road	
			26	North side of Auld Rd at Leon Rd	GS/TC	Road & Distribution OH	
			27	South side of Auld Rd at Leon Rd	GS/TC	Road & Distribution OH	
			28	North side of Murrieta Hot Springs Rd and Chandler Dr	GS/TC	Road	
			29	South side of Murrieta Hot Springs Rd and Chandler Dr	GS/TC	Road	

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<tr><td></td><td></td><td>
<table>
<tr><td>30</td><td>North side of Nicolas Rd ~970 feet west of Calle Medusa</td><td>GS/TC</td><td>Road & Distribution OH</td></tr>
<tr><td>31</td><td>South side of Nicolas Rd ~970 feet west of Calle Medusa</td><td>GS/TC</td><td>Road & Distribution OH</td></tr>
</table>
Notes:
1) The methods used to guard the various crossings would be wood pole type guard structures (GS), or specially modified boom trucks or cranes (BT), or flagmen controlling traffic (TC).
These crossing locations, which have been identified based on preliminary engineering, would be protected with guard structures, boom trucks, and/or traffic control when Subtransmission conductor span sections are being pulled. These locations may be subject to change upon further review and requirements as identified in the final engineering. (Also, please refer to Figure 3.7 Proposed Pull & Tension Sites, Splicing Sites and Guard Structures).
</td></tr>
<tr><td>1-16</td><td>Section 3.5.3.2.2, Page 3-22, states that “Segment 1 includes a new underground conventional system”. Please explicitly state the type of line to be installed (e.g., single circuit cross-linked polyethylene-insulated solid-dielectric, copper-conductor cables).</td><td><u>PEA Update: Chapter 3, Section 3.5.3.2.2, has been revised to explicitly state the requested information.</u>
“Segment 1 would include a new underground conventional system that consisting of three new subtransmission vaults, a new duct bank, and new underground 115 kV (single circuit, cross-linked polyethylene, stranded-dielectric, copper) cables.”</td></tr>
<tr><td>1-17</td><td>Section 3.5.3.2.2, Page 3-22, states that the new underground system consists of three new subtransmission vaults. For the vaults, provide approximate location/spacing along the alignment.</td><td>SCE’s GIS files include the approximate location of the vaults. GIS files are also in the attached file entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip.</td></tr>
<tr><td>1-18</td><td>Section 3.5.3.2.4, Page 3-26, states that there are approximately 14 locations where overhead to underground transition (risers) need to be adjusted in Segment 1, which would require trenching and installation of conduits from the point of interception to the new pole locations resulting in approximately 900 feet of new underground distribution lines. Please provide GIS data and/or detailed project maps (e.g., road story maps) showing these project details (see DR 1-1).</td><td>No distribution design has been developed at this time. Locations where overhead to underground conversions may be affected are included in SCE’s GIS files (See Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip.)</td></tr>
<tr><td>1-19</td><td>Section 3.6, Page 3-29, second bullet, states that “approximately 36 private properties would require new or upgraded land rights and agency permits as required.” The last paragraph also gives a breakdown of SCE fee-owned property, existing easements, franchise rights, new or upgraded easements. Please provide GIS data and/or detailed project maps (e.g., road story maps) showing these project details (see DR 1-1). If new ROW is required, describe how it would be acquired and approximately how much land would be required (length and width). List the properties likely to require acquisition.</td><td>There are 25 private properties that would require new or updated land rights. SCE’s final PEA will be updated to reflect this number. SCE’s GIS files include information showing these project details.
SCE is responsible for acquiring project land rights in conformance with federal, state, local laws and regulations, professional license requirements, and the CPUC’s decision. Work includes performing title research, land survey, document preparation, appraisal, escrow, encroachment removal, and acquisition negotiation.
The goal of Land Acquisition is to secure the property rights required for the Project. The process used to secure these rights includes Document Preparation, Negotiation and Condemnation. SCE also deals with Secondary Land Use issues and obtains Temporary Entry Permits as required to support the Proposed Project.</td></tr>
<tr><td>1-20</td><td>Section 3.7.2.2, Page 3-43, states that all construction vehicles and equipment would be moved to pole installation and removal sites overland using the existing subtransmission access road network and spur roads. Please supplement the information provided in Table 3.9-A, which includes vehicle types, number of vehicles, and duration of use by activity, by providing the estimated number of trips and hours of operation.</td><td>The estimated number of trips can be found within Chapter 4, Section 4.16, Transportation and Traffic. Based on the anticipated construction schedule of 16 months and the Equipment and Workforce Table 3.9-A, the maximum number of construction personnel that would be required on a single day would be 67. Construction personnel commuting is estimated to add approximately 134 total daily trips to area roadways. Construction vehicles would add an additional 268 total daily trips to Proposed Project vicinity roadways. When combined, construction personnel commuting and transporting construction equipment would add a maximum of 402 total daily trips to Proposed Project vicinity roadways. Hours of operation for each piece of equipment can be found in Table 3.9-A, column labeled, “Duration of Use (hrs/day)”.</td></tr>
<tr><td>1-21</td><td>Section 3.7.2.2.1, Page 3-44, second bullet, states that “footings would be removed to a point 1 to 2 feet below grade and the holes would be filled with excess soil and smoothed to match the surrounding grade.” In the second paragraph, it states that “existing wood poles would be completely</td><td>The statement “footings would be removed to a point 1 to 2 feet below grade and the holes would be filled with excess soil and smoothed to match the surrounding grade” refers only to TSP or Tower foundation removals where a concrete footing was previously installed. As both wood and LWS poles are installed without foundations, their removals would include disconnecting conductors from the insulators, removing the insulators, and, if equipped, removing the crossarms. The soil surrounding the pole would be partially excavated to loosen the</td></tr>
</table>

<table>
<tr><td></td><td>removed once the subtransmission, distribution, and telecommunications lines are transferred to the new poles. The removal would consist of the above- and below-ground portions of the pole.” Please clarify to what extent below-ground portions of the poles would be removed (all or just 1-2 feet below grade)? Describe how dismantling of the poles would occur. Also, would any surface restoration occur at the pole sites?</td><td>pole and a Manatex boom truck would be utilized to pull the pole (including the subsurface portion) out of the ground. Depending on the condition of each pole site prior to construction, some surface restoration may be required.</td></tr>
<tr><td>1-22</td><td>Section 3.7.2.2.2, Page 3-45, discusses top removal, although it is stated that all third-party telecom would be transferred to new poles where warranted. Does this mean no top removals are anticipated? If so, clearly state. Also describe, in the event top removal is necessary, the methodology to access and remove the tops of the poles. Describe any special methods required to top poles that may be difficult to access, etc. It appears some of this information is provided in Section 3.7.2.2.1.1 for TSPs, but is incomplete. Foundation information for other poles types do not appear to be provided.</td><td><u>PEA Update: Section 3.7.2.2.2 Top Removal was updated to include the language below.</u>

For the Proposed Project, topping existing wood poles would be required when third-party telecom/cable would remain on the topped poles. Access to the pole tops would be via bucket truck(s), or linemen would climb the poles where vehicle access was limited. Once the Subtransmission and/or Distribution conductors have been removed and transferred to the new poles, the support crossarms on the existing poles (if equipped) would be removed and the top portion of the poles above the existing telecom/cable attachment point would be cut and removed.

As mentioned in item 1-21, above, wood and LWS poles do not require foundations.</td></tr>
<tr><td>1-23</td><td>Section 3.7.2.2 discussed pole installation and removal. For any foundations required, provide a description of construction method(s), approximate average depth and diameter of excavation, approximate volume of soil to be excavated, approximate volume of concrete or other backfill required, etc.</td><td>Please refer to the installation of TSP foundations described on Page 3-45, Section 3.7.2.2.1.1 Foundation Installation, noting that the volume of soil to be excavated will be nearly equivalent to the volume of concrete required for the TSP foundations.</td></tr>
<tr><td>1-24</td><td>Section 3.7.1.1, Page 3-30, first full paragraph, states that “preparation of the staging yard would include temporary perimeter fencing”. Please describe the type of fencing and height/extent.</td><td>The type of fencing used would be chain link with a height of six feet. Such fencing would typically be installed at or close to the perimeter of the identified staging yard in order to maximize storage area.</td></tr>
<tr><td>1-25</td><td>Section 3.7.1.2, Page 3-35, provides information on typical work areas. Based on the information provided, describe how these sites would be restored.</td><td>Please refer to Page 3-39, Section 3.7.1.7 Cleanup and Post Construction Restoration.</td></tr>
<tr><td>1-26</td><td>Section 3.7.1.2, Page 3-35, states that “[b]enching may be required to provide access for footing construction, assembly, erection, and wire stringing activities during line construction.” Has SCE identified areas where benching is anticipated to be needed? If so, please provide GIS data and/or detailed project maps (e.g., road story maps) showing these project details (see DR 1-1).</td><td>SCE has not yet determined whether any specific locations would require “benching”. However, further field assessments will be conducted upon final engineering, and, if necessary, any anticipated benching would be identified and included in the GIS data and/or project maps.</td></tr>
<tr><td>1-27</td><td>Section 3.7.1.3, Pages 3-36, second paragraph, states that “SCE would utilize a combination of through roads and spur roads accessed from a network of existing paved and unpaved public and private roads.” For the roads SCE expects to utilize, including unimproved proposed and/or dedicated public streets (e.g., Menifee Road, McLaughlin Road, Briggs Road, Matthews Road, Grand Avenue, Leon Road, Benton Road, etc.), please clearly describe in a table format the temporary and permanent roads that will be used for the project. Include details as to whether existing roads would have permanent improvements or temporary improvements, where overland access would be utilized, which roads are paved or dirt/gravel roads, etc. For road types that require preparation, describe the methods and equipment that would be used. Also, identify</td><td>The table below lists all roads within the general vicinity of the Proposed Project that could be used during construction. The only road that may require any improvements would be the existing 400’ access road. It is anticipated that this 400’ existing road may only require brushing/mowing along the edge of the road and light blading to level out the surface. This work is typically performed with handheld weed-whackers or brushing mower. It is not anticipated that the other paved and unpaved roads in the table below would require any permanent or temporary improvements. Note that existing unpaved joint-utility use access roads are maintained on an on-going schedule or as needed to rehabilitate or restore the driving surface.

<table>
<tr><th>Road Name</th><th>Road Surface</th><th>Public/Private</th></tr>
<tr><td>Existing permanent 400’ Access Road approximately 300 feet south of Craig Rd</td><td>Unpaved</td><td>Private</td></tr>
<tr><td>Existing Access Road
Between Suzi Ln & Nicolas Rd</td><td>Unpaved</td><td>Private</td></tr>
</table></td></tr>
</table>

approximately location of all access roads (by type) in the GIS database (refer to DR 1-1).

Existing Access Road Between Borel Rd & Murrieta Hot Springs Rd	Unpaved	Private
Existing Access Road between Benton Rd & Auld Rd	Unpaved	Unknown (May be an un-dedicated extension of Leon Rd)
Existing 0.20 mile Access Road extending north of Case Rd and parallel to Briggs Rd	Unpaved	Private
‘Old’ Leon Rd between Benton Rd & approximately 300 feet south of Lantana Wy	Paved & Unpaved	Unknown
Menifee Rd	Paved & Unpaved	Public
Ethanac Rd (Hwy 74)	Paved	Public
Antelope Rd	Paved	Public
Private Road (SCE Access/Farm Roads)	Unpaved	Private
Case Rd	Unpaved	Public
Briggs Rd	Paved	Public
Matthews Rd	Paved & Unpaved	Public
Grand Ave	Paved	Public
Leon Rd	Paved & Unpaved	Public
Benton Rd	Paved	Public
Simpson Rd	Paved	Public
Domenigoni Pkwy	Paved	Public
Holland Rd	Paved & Unpaved	Public
Garbani Rd	Paved & Unpaved	Public
Wickerd Rd	Unpaved	Public
Loretta Rd	Unpaved	Public
Scott Rd	Paved	Public
Perrine St	Unpaved	Unk
Aaron Rd	Unpaved	Unk
Curzulla Rd	Unpaved	Unk
Via Las Rosas	Unpaved	Unk
Clowes Ln	Unpaved	Unk
La Ray Ln	Unpaved	Unk
Keller Rd	Unpaved	Unk
Hilton Rd	Unpaved	Unk
Flossie Wy	Unpaved	Unk
Baxter Rd	Paved	Public
Jean Nicholas Rd	Paved	Public
Penny Cress Ln	Paved	Public
Winchester Rd (Hwy 79)	Paved	Public
Max Gillis Rd	Paved	Public
Auld Rd	Paved	Public
Van Gaale Ln	Unpaved	Public
Allen St	Unpaved	Public

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>Jolynn Rd</td><td>Unpaved</td><td>Public</td></tr>
<tr><td>Borel Rd</td><td>Unpaved</td><td>Private</td></tr>
<tr><td>Central Park Dr</td><td>Paved</td><td>Public</td></tr>
<tr><td>Summit Rock Ln</td><td>Paved</td><td>Public</td></tr>
<tr><td>Bow Bridge Dr</td><td>Paved</td><td>Public</td></tr>
<tr><td>Murrieta Hot Springs Rd</td><td>Paved</td><td>Public</td></tr>
<tr><td>Chandler Dr</td><td>Paved</td><td>Public</td></tr>
<tr><td>Suzi Ln</td><td>Paved</td><td>Public</td></tr>
<tr><td>Butterfield Stage Rd</td><td>Paved</td><td>Public</td></tr>
<tr><td>Cantrell Rd</td><td>Paved</td><td>Public</td></tr>
<tr><td>Calle Chapos</td><td>Paved</td><td>Public</td></tr>
<tr><td>Calle Girasol</td><td>Paved</td><td>Public</td></tr>
<tr><td>Nicolas Rd</td><td>Paved</td><td>Public</td></tr>
<tr><td>S. G St (Perris)</td><td>Paved</td><td>Public</td></tr>
<tr><td>Commercial St (Perris)</td><td>Paved</td><td>Public</td></tr>
</table>
</td></tr>
<tr><td>1-28</td><td>Section 3.7.1.3, Pages 3-36, third paragraph, states that “Some rehabilitation may be required for the existing unpaved access roads.” No land disturbance for rehabilitation and widening of existing unpaved access roads, as noted in Section 3.7.1.3, appears to have been accounted for in the land disturbance calculations shown in Table 3.4, Access Road Land Disturbance Table, or Table 3.5, Subtransmission Approximate Land Disturbance. Table 3.5 only appears to account for overland travel associated with spur roads to access pole sites (7.7 acres), and Table 3.4 only accounts for the one permanent access road noted on the easterly side of Leon Road south of Craig Road (Table 3.4 shows 0.2 acres). Please provide additional details regarding the expected level of rehabilitation needed to improve the existing unpaved access roads for use under the Proposed Project and account for the associated land disturbance in Tables 3.4 and 3.5, as appropriate.</td><td>The rehabilitation of existing, unpaved access roads was not included as land disturbance in Table 3.4 because the existing roads (i.e., SCE, non-public) are considered previously-disturbed and are maintained on a scheduled (or as needed) basis. Some brushing, weed mowing and/or light blading of these roads may be required just prior to the start of construction, dependent upon when the existing roads were last rehabilitated under O&M, and the level of erosion incurred due to rain storms. The temporary access locations to pole sites (7.7 acres) may require weed/brush mowing and possibly some light blading to level out the surface terrain high and low spots.</td></tr>
<tr><td>1-29</td><td>Section 3.7.1.3, Page 3-36, third paragraph, states that typical construction activities associated with rehabilitation of access roads includes vegetation clearing. Section 3.7.15, Page 3-37, also states that new structure pad locations and laydown/work areas would be graded and/or cleared of vegetation, as necessary. Vegetation disturbance is also noted for previously undisturbed pole locations and/or lay down areas (last paragraph on Page 3-68). Please provide additional discussion as to the types of vegetation clearing that may be required (e.g., tree removal, brush removal, flammable fuels removal) and why (e.g., to provide access, etc.). Please provide the preliminary location and an approximate area of disturbance in the GIS database for each type of vegetation removal (see DR 1-1). Describe how each type of vegetation removal would be accomplished. For removal of trees, distinguish between tree trimming as required under G.O.-95 and tree removal. Describe the types and approximate number and size of trees that may need to be removed. Describe the type of equipment typically used for these vegetation</td><td>A tree and vegetation survey was conducted along the proposed project route within the potential impact area of the Valley South Subtransmission Project. The entire route of the planned transmission route was toured by vehicle during the survey to ensure that all trees and tall shrubs were detected, and areas where trees and tall shrubs were adjacent or within the potential impact area were surveyed and measured by foot. Tree measurements were made using standard arboricultural methods to calculate the diameter at breast height (DBH) and to calculate tree height. Plants were identified using the Jepson’s Manual 2nd Edition. The level of tree trimming and/or removal are based on requirements included in CPUC General Order (GO)95, Overhead Electric Line Construction. Trees were tagged with tree numbers in the field for later identification. Photographs were taken and GPS coordinates were recorded in the field. This data will be included in the GIS files entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip. Additionally, the full results of the tree and vegetation survey, including the types, number and size of trees, the methods of removal, and types of equipment used are provided in Appendix J: Tree Survey Report and Chapter 3, Table 3.10-A Subtransmission Construction Equipment and Workforce Estimates.
<u>PEA Update: Section 4.4.4.5 was updated to include a reference to the Tree Survey Report</u>.</td></tr>
</table>

	removal activities (information provided in Table 3.10 does not focus on vegetation removal).	
1-30	Section 3.7.1.3, Page 3-37, second paragraph under "Access Locations", states that SCE would generally utilize overland travel from the edge of existing paved or dirt road approximately 50 feet to reach each pole site; however access to staging areas and other work areas are not specified. Please describe access to all construction areas.	All material staging yards shown in Table 3.2 have existing drive access from the street. As stated on Pages 3-36 and 3-37, access to other work areas will be worked out with the property owners just prior to construction.
1-31	Section 3.7.1.6, Page 38-39, provides information on the SWPPP, dust control, hazardous materials, and waste materials management. Per the PEA Checklist, please describe the areas of soil disturbance including estimated total areas and associated terrain type and slope. List all known permits required.	Please refer to Chapter 3, Section 3.2.3.11, Table 3-2 D, which lists activities and soil disturbance that includes the amount of earth disturbance. Chapter 4, Section 4.6.1.4 Soils and Appendix E-5 Soils Map provide a description of the soil types and characteristics. Attachment 3_Permits is an attached list of anticipated permits that are identified as needed at this stage of the project. Revisions would be made as we proceed throughout the project lifecycle.
1-32	Section 3.7.1.7, Page 39, provides information on clean up and post-construction restoration. Describe how cleanup and post-construction restoration would be performed (i.e., personnel, equipment, and methods). Some information on personnel and equipment is provided in Table 3.9-A, but additional description on methods is needed.	Until construction is nearing completion, the level of clean up and restoration efforts that would be required are unknown. If restoration occurs within sensitive habitats, a habitat restoration and/or revegetation plan(s) would be developed by SCE with the appropriate resource agencies, as appropriate, and implemented after construction is complete.
1-33	Section 3.7.2.1.1, Page 3-39, states that approximately 55 pulling, tensioning, and splicing set-up locations are currently proposed, and are depicted in Figure 3.7. Please provide the GIS data of the set-up sites depicted in Figure 3.7 (see DR 1-1).	SCE's GIS files include the work locations for pulling, tensioning, and splicing and are in the attached files entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip.
1-34	Section 3.2.3.2 provides information on structure site preparation. For any foundations required, please provide descriptions of construction method(s) such as approximate average depth and diameter of excavation (This appears in Table 3.1), approximate volume of soil to be excavated, approximate volume of concrete or other backfill required (not included in Table 3.1).	There is no Section 3.2.3.2. For the Proposed Project, site preparation is conducted to prepare the ground surface (e.g., brushing, weed mowing, road/work area light blading). The description of construction methods for installing TSP foundations is included in Section 3.7.2.2.1.1 Foundation Installation. Please also see response to DR 1-23.
1-35	Section 3.7.2.3.1, Page 3-49, describes typical wire stringing activities. It is noted that a bucket truck and sock line would be utilized. Please provide a complete description of all equipment that would be required at the pull and tension sites. This equipment may be part of the equipment listed in Table 3.9-A under "Install Conductor & Ground Wire", however, it is not clear which equipment is specific to the pull and tension sites. Please clarify.	All equipment listed in Table 3.9-A under "Install Conductor & Ground Wire" is specific to the stringing sites. The pulling machine would be set up at the pulling site, while a tensioner with reels of conductor would be set up at the tensioning site.
1-36	Section 3.7.2.3.1, Page 3-49, describes the steps for typical wire-stringing activities. Please generally describe the conductor/cable splicing process. Also state whether implosive sleeves would be utilized for splicing.	Where two newly installed conductors meet, the ends of the conductors would be mechanically spliced. Upon preparation of the conductor ends, a mechanical sleeve would be attached to both ends of the two individual conductors (approximately midway between the nearest poles); once secured, a tensioning machine would be activated and the conductor would be raised to the final sag height. Implosive sleeves would not be utilized.
1-37	Table 3.9-A on Pages 3-56 to 3-63, provides the subtransmission construction equipment and workforce estimates. In comparing this table with Table 3.5 (Subtransmission Approximate Land Disturbance), there appear to be some inconsistencies, as follows: a. Under "Roads & Landing Work" the total is estimated at "12 Miles & 304 Pads". This appears to generally correspond with the	**PEA Update: Table 3.10-A was updated to indicate 400 feet & 303 Pads.** a. The Equipment and Workforce Estimates Table and Table 3.5 Subtransmission Approximate Land Disturbance for new access roads will be corrected to 400 feet instead of 12 miles. The 303 sites for "Access to Pole Site Locations" in Table 3.5 is accurate. SCE's final PEA was updated to reflect 303 versus 304 pad locations.

	303 sites for "Access to Pole Site Locations" in Table 3.5 (off by one – basis for 304?); however, please explain the basis for the 12 miles of road work. Table 3.5 only accounts for the land disturbance associated with one new permanent access road (400'x18') and no other roads. Please revise tables and add notes as necessary to explain and account for the land disturbance associated with upgrades to existing roads. b. Under "Install Conductor & Ground Wire" the total estimated is 15.4 miles for conductor and 9 miles for Ground Wire. Please explain the difference in the miles. Also, do the equipment and workforce shown account for preparation of stringing conductor/cable setup areas (pull, tensioning, and splicing)? Please explain and/or revise the table accordingly. c. Under "Install Underground Cable" the total estimated is 1,800 feet. This appears to be a discrepancy compared to the description of new trench for the underground portion of the new 115 kV line in Section 3.5.3.2.2 (Subtransmission) and Table 3.5, both of which estimate 1,600 feet for underground trench, conduit, and cable. Under Section 3.7.3.1.2 (Subtransmission Trenching), the total trenching for the new underground 115 kV line and associated transition and support structures is stated to be 1,800 feet. Please correct and/or explain these discrepancies.	b. The approximate length of the Proposed Project is 15.4 miles, 3.4 miles of which would only be reconductored with a larger size conductor than already exists (as such, an additional ground wire would not be required in the Segment 2 portion of the project.) The remaining approximately 12 miles (i.e., Segment 1) consists of areas where ground wire is either unnecessary (i.e., no LWS poles either exist or are proposed) or equivalent grounding already exists (i.e., a four-wire distribution circuit provides adequate grounding). The equipment and workforce shown account for preparation of stringing conductor and ground cable setup areas used for pulling, tensioning and splicing. c. Approximately 1,600' of duct bank and underground cable will be installed horizontally below ground. The additional 200' of underground cable (referenced in the question) is the total vertical cable length that transitions the underground configuration to the overhead configuration at the riser TSP (east of Menifee Road) and at the rack connection (within Valley Substation).
1-38	Section 3.7.3.1.2, Page 3-51, discusses trenching for the installation of the underground portion of the 115 kV subtransmission line. a. Describe the process for testing excavated soil for the presence of pre-existing environmental contaminants that could be exposed as a result of trenching operations. b. If a pre-existing hazardous waste were encountered, describe the process of removal and disposal. c. Describe any standard BMPs that would be implemented.	This is discussed in the Hazards and Hazardous Materials Section 4.8 of the PEA. Additionally, a Hazardous Materials Plan would also be developed by SCE which address these issues.
1-39	Section 3.7.3.1.2, Page 3-51, first paragraph states that "An approximately 20- to 24-inch wide by 60-inch deep trench would be required to place the 115 kV subtransmission line underground." However, Table 3.5 shows that the acreage of disturbance for "Install Underground Trench, Conduit, and Cable" is based on a width of 30 feet. Please explain and/or correct description as necessary.	Table 3.5 Land Disturbance, identifies temporary and permanent surface disturbance areas. The approximate 20 to 24 inch wide by 1,600 feet long trench for the installation of the underground cables would be included within the 30-foot overall work area temporary disturbance width to install the underground duct bank and cable.
1-40	Section 3.7.3.1.3, Page 3-52, first paragraph, states that the "inside dimensions of the underground vaults would be approximately 10 feet wide by 20 feet long with an inside height of 9.5 feet." Figure 3.5 on Page 3-25 shows these same dimensions, except the height is 5.5 feet. Also, in Table 3.5 the acreage of disturbance for "Install Underground Vault" is	Figure 3.5 shows a horizontal cross-section of the vault (i.e., separate top and bottom sections) with interior heights for each section of 4 feet 9 inches, creating a total internal vault height of 9 feet 6 inches. The summary (i.e. 0.7 acres) in Table 3.5 accurately identifies the approximate total temporary/construction disturbance area for the (3) proposed vaults based upon a calculation of 100'x100' per vault; approximately 700 square feet of this amount (231 square feet per vault) will be considered permanent disturbance attributable to the structures themselves.

	based on an area of 100 feet long and 100 feet wide for each vault. Please explain these discrepancies and correct tables/figures/text as necessary.	
1-41	Section 3.7.3.1.2, Page 3-51, first paragraph states that for installation of the 1,800 feet (or should it be 1,600 feet?) of underground 115 kV subtransmission line "Once the duct bank has been installed, the trench would typically be backfilled with a sand slurry mix. Excavated materials would be reused as fill for the Proposed Project and/or disposed of at an off-site disposal facility…" a. Is the "sand slurry mix" the same as "cement slurry"? If not, please provide the approximate cubic yards of sand slurry mix for import. b. Please provide the total approximate cubic yards of material to be removed from the trench, the amount to be used as backfill, and the amount to be subsequently removed and disposed of off-site.	**PEA Update: Section 3.7.3.1.2 Subtransmission Trenching was updated to include cement slurry mix.** a. SCE's final PEA was updated to replace the term "sand slurry mix" with "cement slurry mix". b. Approximately 593 cubic yards of soil will be excavated for the duct bank and approximately 448 cubic yards will be excavated for the 3 vaults. Two percent or less of the excavated soils will be used as backfill cover over the top of the duct bank and vaults. Note, please refer to DR 1-37(c) for clarification of the length of installation (i.e., 1,800 feet vs. 1,600 feet) of underground 115kV subtransmission cable.
	Section 3.7.3.1.2, Page 3-51, first paragraph, last sentence states "Should groundwater be encountered, it would be pumped into a tank and disposed of at an off-site disposal facility in accordance with all applicable laws". For dewatering, please describe the anticipated flows of the water and whether there would be treatment.	Geotechnical studies would be conducted for final engineering of the new TSPs. If a significant water amount is encountered during geotechnical analysis, and, if it is determined that water needs to be extracted for TSP installation, the estimated water amount would be determined at that time. Geotechnical studies would not be required for the installation of wood or light weight steel (LWS) poles because the depth of the poles are approximately 10 to 12 feet, which is expected to be well above any potential groundwater underneath the Proposed Project route (for estimated groundwater table levels refer to Section 4.9.1.3). Chapter 4.9 Hydrology and Water Quality - Section 4.9.4.1 includes a discussion of the SWPPP and the BMPs that address groundwater dewatering activities. Chapter 4.8 Hazards and Hazardous Materials) and Section 4.9.4.2 also addresses dewatering excavations.
1-43	Section 3.7.3.2, Page 3-53, generally discusses trenchless boring (i.e., directional drilling), and states that this method may be required instead of underground trenching of the 115 kV line as it exits Valley Substation and crosses roads where existing utilities are located. a. Have conflicts with utilities been identified in Menifee Road or McLaughlin Road where trenching is assumed? b. If trenchless boring is anticipated, (1) describe the equipment required, including number and type of equipment, estimated workforce, duration of use, and hours of operation (similar information to Table 3.9A, which is assumed to be based on conventional cut/cover trenching). (2) Provide the approximate location(s) of the receiving hole and entrance pits. (3) Provide the length, width, and depth of the pits. (4) Describe the methodology for excavating and shoring the pits. (5) Provide the total cubic yards of material to be removed from the pits, amount to be used as backfill, and amount to be subsequently removed and disposed of offsite. (6) Describe the process for safe handling of drilling mud and bore lubricants. (7) Describe process for detecting and avoiding "fracturing-out" during horizontal directional drilling operations. (8) Describe the process for avoiding contact between drilling mud/lubricants and streambeds, if appropriate.	Directional boring will not be employed, the PEA will be updated to reflect this revision to Section 3.7.3.2 Trenchless Techniques: Microtunnel, Bore and Jack, Horizontal Directional Drilling. **PEA Update: Section 3.7.3.2 was updated in the PEA to include the following language:** *The Proposed Project would not utilize trenchless techniques to support construction activities.*

	c. If engineered fill would be used as backfill, provide information as to the type of engineered backfill and the amount that would be typically used (e.g., top two feet would be filled with thermal-select backfill). d. If dewatering is anticipated, describe how the pit would be dewatered, what the anticipated flows of the water are, whether there would be treatment, and how the water would be disposed of. e. Describe the process for testing excavated soil or groundwater for the presence of pre-existing environmental contaminants. If a pre-existing hazardous waste was encountered, describe the process of removal and disposal. f. Describe any grading activities and/or slope stabilization issues, as applicable to trenchless boring. Describe any standard BMPs that would be implemented.	
1-44	Section 3.5.2.3, Page 3-21, states that new communications equipment would be installed at the existing Valley and Triton Substations and that this work would occur within the existing MEER. While these activities may not result in additional land disturbance, please provide information describing the types of communications equipment to be added.	**PEA Update: Section 3.5.2.3 was updated with *"This section is Not Applicable to VSSP"* and Section 3.5.1.3 was updated to include equipment located in MEER.** The Project does not involve any telecommunications poles/towers. Telecommunication Towers and Poles, Section 3.5.2.3, Page 3-21 should have stated: *"This section is Not Applicable to VSSP"*. SCE's final PEA Section 3.5.1.3 has been updated accordingly. Inadvertently Section 3.5.2.3 repeats portion of the information stated in Section 3.5.1.3, where it is stated: *"… new telecommunication infrastructure would provide relaying services for the new 115 kV subtransmission line."* Channel equipment will be installed in the existing MEERs at Valley and Triton Substations. This equipment interfaces between the relay and the optical transmission equipment, also housed in the MEER.

1-45	Section 3.5.4.23, Page 3-28, describes the modifications at SCE's existing Valley Substation. Please provide details as to what the function/use of said equipment would be. Provide approximate or "typical" dimensions (width and height) of new structures including engineering and design standards that apply.	See Attachment 4_Table – Details on the equipment proposed to be installed at Valley Substation for the requested information, these details are subject to final engineering.

Valley South System Project
Details on the equipment proposed to be installed at Valley substation

Equipment	Qty.	Function/use	Typical dimensions (ft) (Length-Width-Height)	Design Standards	Comments
Circuit Breakers	2	Switching of line	12Lx9Wx17H	3000A, 50kA	
Disconnect switches	4	Maintenance of CB	21Lx5Wx14H	3000A	
Potential transformer	1	Metering	3Lx3Wx14H	69/115kV-(2ea)69x115V	
Lighting arresters	3	Lightning Protection	4.5Lx2Wx14H	96kV	
Conductor bus	1	Equipment Interconnection	Not applicable	2ea-1590KCMIL/Ph	ACSR
115 kV line getaway	1	Connection to Line	Not applicable	3ea.-5"PVC, EB	1-1750KCMIL/Ph Alum(UG)
Equipment conduits		Route for control cable	Not applicable		3" PVC
Equipment grounding		Personnel Safety	Not applicable		4/0 bare CU
Protection relays	4	Protect Line & Eqpt.	Not applicable	D60,Sel311l, 2Sel352	19" Rack-mount

1-46	Section 3.7.1.7, Page 3-39, first paragraph, states "SCE would clean up and restore all areas that would be temporarily disturbed by construction of the Proposed Project (which may include the material staging yard, construction setup areas, stringing sites, and splicing sites) to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE following the completion of construction of the Proposed Project." Please describe how cleanup and post-construction restoration would be performed (i.e., personnel, equipment, and methods). Please consider restoration of the following: natural drainage patterns, wetlands, and vegetation, and other disturbed areas (i.e. access roads, etc.).	Until construction is nearing completion, the level of clean up and restoration efforts that would be required are unknown. If restoration occurs within sensitive habitats, a habitat restoration and/or revegetation plan(s) would be developed by SCE with the appropriate resource agencies, as appropriate, and implemented after construction is complete.
1-47	Section 3.7.6, Page 3-67, first paragraph, states that construction of the Proposed Project is expected to take approximately 16 months. Please state what the expected normal work hours would be for construction and	SCE's GIS files include the work locations for pulling, tensioning, and splicing and are in the attached files entitled Attachment 1_VSSP_PEA_GIS_SUBMITTAL.zip.

<table>
<tr><td></td><td>days during the week (e.g., 8:00 a.m. to 5:00 p.m., Monday-Friday). Would work during nighttime or outside normal work hours be expected? If so, under what circumstances?</td><td></td></tr>
<tr><td>1-48</td><td>Section 3.7.6 states that construction would take approximately 16 months, and based on Table 3.11 would extend from February 2017 to January 2020. To support the air quality analysis, please provide a detailed schedule breakdown of work activities showing overlapping activities based on the activities shown in Tables 3.9-A, 3.9-B, 3.9-CB.</td><td>A detailed schedule breakdown of work activities is not currently available. Therefore, the Air Quality Analysis conservatively assumes that the peak daily emissions during construction of each component of the Proposed Project could potentially overlap at any time and occur concurrently on the same worst-case scenario day. Daily emissions from each component have been added together to represent the worst-case maximum daily emissions. Even though this scenario in which the peak day of all four construction components (substation modifications, subtransmission line construction, distribution relocation and telecommunications construction) is not likely to occur, in order to present a conservative analysis, the worst-case maximum daily emissions are presented in the Air Quality Analysis and compared to the applicable SCAQMD daily thresholds. Please refer to Section 4.3, Air Quality, for detailed information and estimated worst-case Proposed Project daily emissions.</td></tr>
<tr><td>1-49</td><td>Please indicate the number of truck trips required and the trip route for the delivery of each of the following materials; (1) TSPs, (2) LWS poles, (3) wood poles/wood guy stub poles, (4) new substation equipment, and (5) cable.</td><td>Below is a table displaying the number of trucks, trip miles, trips per day and total trips for delivery of the TSPs, LWS/wood poles, new substation equipment and cable. Note that any of the roads shown in the table previously identified in DR 1-27 could be used to deliver the materials. Because this project is primarily linear, the truck routes used would normally be along or adjacent to the Proposed Project route unless field conditions suggest otherwise.
<table>
<tr><th colspan="2">Activity</th><th>Number of Equipment</th><th>Total Miles</th><th>Estimated # of Trips Per Day</th><th>Total # of Trips</th></tr>
<tr><td>1</td><td>TSP</td><td>7</td><td>12,708</td><td>10</td><td>438</td></tr>
<tr><td>2</td><td>LWS Poles</td><td>3</td><td>1,416</td><td>6</td><td>236</td></tr>
<tr><td>3</td><td>Wood Poles/Wood guy stub poles</td><td>6</td><td>2,784</td><td>12</td><td>464</td></tr>
<tr><td>4</td><td>New Substation Equipment</td><td>7</td><td>10,000</td><td>10</td><td>135</td></tr>
<tr><td>5</td><td>Cable</td><td>35</td><td>4,253</td><td>84</td><td>979</td></tr>
<tr><td>Total</td><td></td><td>58</td><td>31,161</td><td>122</td><td>2,252</td></tr>
</table></td></tr>
<tr><td>1-50</td><td>Please identify if any new SF6 containing equipment would be installed and the amount of SF6 contained in such equipment. It is indicated in Table 1.1, PEA Checklist Key, that this information (if applicable) would be included in Section 4.7, Greenhouse Gas Emissions. Please also summarize key information in the project description.</td><td>Information regarding SF_6 is provided in Chapter 4, Green House Gas Section 4.7.4.1. As described in that section, SF_6 would be emitted from two new 115kV circuit breakers at SCE's existing Valley 500/115kV Substation. The circuit breakers would contain an estimated 60 to 90 pounds of SF_6 each would be installed as part of the Proposed Project.

<u>PEA Update: 3.5.4.23 Modifications to Existing Substations.</u>

In order to accommodate the Proposed Project connection at SCE's existing Valley 500/115 kV Substation, the following work would be conducted:

• Equip a position of the existing 115 kV switchrack with two 115 kV circuit breakers <u>(the circuit breakers would contain an estimated 60 to 90 pounds of SF_6)</u>, four 115 kV group-operated disconnecting switches, one 115 kV potential transformer, three 115 kV lightning arresters, and install a conductor bus using two 1,590-kcmil ACSR conductors. In addition, a 115 kV line getaway exiting the substation would be installed underground.
• Install equipment conduit and grounding for the circuit breakers and disconnect switches, which would include trenching.
• Install six protection relays mounted in two 19-inch relay racks inside the MEER.</td></tr>
</table>

1-51	Section 3.7.6 states that "Construction would commence following CPUC approval, final engineering, procurement activities, land rights acquisition, and receipt of all applicable permits." Please specify all known permits that would be required to implement the Proposed Project.	Refer to SCE's response to DR 1-31 for the list of all known permits.
1-52	Section 3.15 provides one route alternative to the Proposed Project. At the top of PEA Page 2-11 there is a reference to "system alternatives" that were considered; however, no information on these system alternatives is provided. In the previous draft version of the PEA (December 2012), system alternatives were discussed in Sections 1.3 and 1.5. Please provide additional information on other alternatives, including system alternatives that were considered, as well as clear, detailed reasoning to support elimination of these alternatives from consideration. This information may be provided in Chapter 5; however, it is not currently available for review.	Alternatives are now included in Chapter 5 per the CPUC's Working Draft Proponent's Environmental Assessment (PEA) Checklist for Transmission Line and Substation Projects.