

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 6, 2014

Ms. Rebecca W. Giles
San Diego Gas and Electric Company
8326 Century Park
San Diego, CA 92123-4150

RE: Request for Additional Data – Certificate of Public Convenience and Necessity for the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project – Application No. A. 14-04-011

Dear Ms. Giles:

The California Public Utilities Commission's (CPUC) Energy Division CEQA Unit has completed its review of San Diego Gas and Electric Company's (SDG&E) application (A. 14-04-011) and related Proponent's Environmental Assessment (PEA) for a Certificate of Public Convenience and Necessity for the Sycamore-Peñasquitos 230 Kilovolt Transmission Line Project.

The CPUC identified a number of data needs that do not rise to the level of deficiencies during review of the Application, PEA, and response to Deficiency Report #1. The data needs are identified in the attached Request for Additional Data.

Information provided by SDG&E in response to this Request for Additional Data should be filed as supplements to Application A. 14-04-011. One set of responses should be sent to the Energy Division and one to our consultant Panorama Environmental, in both hardcopy and electronic format. We request that SDG&E respond to this request no later than August 16, 2014. Please let us know if you cannot provide the information by this date. Delays in responding to these data needs will result in associated delays to preparation of the Environmental Impact Report.

The Energy Division reserves the right to request additional information at any point in the application proceeding and during subsequent construction of the project should SDG&E's CPCN be approved.

Please direct questions related to this application to me at (415) 703-2068 or Billie.Blanchard@cpuc.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Billie Blanchard".

Billie Blanchard
Project Manager
Energy Division, CEQA Unit

cc: Hallie Yacknin, CPUC ALJ
Christine Hammond, Advisor to Commissioner Picker
Mary Jo Borak, Supervisor
Molly Sterkel, Program Manager
Peter Allen, CPUC Attorney
Jeff Thomas, Project Manager, Panorama Environmental

REQUEST FOR ADDITIONAL DATA: DATA NEEDS FOR THE SYCAMORE-PEÑASQUITOS 230 KILOVOLT TRANSMISSION LINE PROJECT APPLICATION (A. 14-04-011)

REPORT OVERVIEW

The California Public Utilities Commission (CPUC) has identified several areas where more information is needed to prepare a complete and adequate analysis of the potential environmental effects of the proposed project in accordance with the requirements of the California Environmental Quality Act (CEQA). Data needs are identified in bold. Clarifying information is provided below the data need.

Table 1: Application No. 14-04-011 Data Needs		
#	PEA Section, Page #	Data Need
PEA Project Description		
1	Deficiency Report #1, Item 1	Confirm that the information provided in Deficiency Report #1, Item 1 describes the full scope, location and access needed for activities at Chicarita, San Luis Rey and Mission Substations.
2	Deficiency Report #1, Item 4	Provide maximum heights and layouts for proposed retaining walls. Response to Deficiency Report #1, item 4, generally defines the locations of 7 proposed fill walls. No GIS data was provided to show the physical layout of these walls relative to the pole sites. The maximum height of these walls and GIS shape files by location are needed to better understand the layout and visibility of these walls.
3	Deficiency Report #1, Item 6	Provide GIS shape files for existing operation and maintenance work pads that would be used for pole removal activities. Response to Deficiency Report #1, Item 6, states that approximately 19 pole removal sites do not occur within the anticipated work area for a new structure. SDG&E states that the existing operation and maintenance work pads would be used for these removal activities, but no GIS data is provided to show specifically where these operation and maintenance areas are located relative to the pole removal sites.
4	Deficiency Report #1; Item 7(d)	Verify the proposed alignment and work area for Segment B. SDG&E modified the alignment for Segment B in the GIS data provided with response to Deficiency Report #1. Item 7(d) in response to Deficiency Report #1 states that the work area for Segment B is approximately 30 feet wide. Panorama has placed a 15 foot buffer on either side of the proposed alignment to show the 30-foot-wide workspace (Attachment A). It appears on the GIS that the proposed work space may overlap with the landscaped median in some parts of the road and may require removal of trees. SDG&E stated during the July 15, 2014 site visit that the City of San Diego has requested that SDG&E minimize impacts to the landscaping.

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
		<p>Please review the proposed alignment and 30-foot-wide workspace (Attachment A). Either provide confirmation that SDG&E would like CPUC to analyze this alignment location in the EIR or provide a revised alignment and workspace area for analysis. In areas where the Segment B alignment overlaps with the landscaped median either describe the methodology for avoiding impacts to the landscaping, or define the number of trees that occur within the landscaped median, and which trees will be removed as a result of the undergrounding.</p>
5	Deficiency Report #1, Item 11	<p>Provide the peak number of workers that will be working on the project during construction.</p> <p>Response to Deficiency Report, Item #11, provides the number of estimated workers for construction of each component; however, we need additional clarity as to which segments would be constructed simultaneously, if any. How many workers will be arriving at the site during a peak workday?</p>
6	GIS Data	<p>Verify the access roads and length of each access road that will be used during construction.</p> <p>During the July 15, 2014 site visit SDG&E discussed that a number of access roads were included to provide flexibility for construction. A number of these access roads extend outside of the 500-foot project study area as shown in Attachment B. One access road is approximately 3 miles long and does not connect to any other access road or work area for the project. Please refine the access road lengths to be reasonable relative to the proposed use and provide associated updated GIS files. Please describe how the access road located south of the alignment and within the canyon bottom may be used for the project if SDG&E wishes to retain it as a work area for the proposed project.</p>
7	Appendix 3-B	<p>Identify alternate staging yards that SDG&E may use to replace the Carmel Mountain Staging Yard. Submit the revised GIS with updated staging yards to CPUC.</p> <p>Residential development was observed during the July 15, 2014 site visit in the Carmel Mountain Staging Yard. The CPUC later verified that this area has recent residential development and the remainder of the area is under construction; therefore, the Carmel Mountain Staging Yard is not a viable staging yard. This is a large staging yard for the project and the only staging yard proposed along Segment D.</p> <p>Identify any potential staging yards or landing zones that may be used during project construction to replace the Carmel Mountain Staging Yard. Revise the GIS data to show appropriate staging yards and submit to CPUC.</p>
8	Section 3.3, Table 3-2, Page 3-6	<p>Identify where trenchless installation may take place in Segment B, and describe the work areas, installation methodology, equipment and materials to be used, safety procedures, and any other guidelines that would be employed.</p> <p>The PEA Project Description states conductor would be installed using trenching and trenchless techniques. Provide a complete description of trenchless excavation techniques.</p>
9	Section 3.3.1, Table 3-3, Page 3-14; Section 3.3.6.2, Page 3-24	<p>Identify the location of existing H-frame and wooden poles that would be topped and left in place. How tall is the portion of the H-frame pole that will be left in place?</p> <p>The PEA Project Description states five H-frame poles with existing distribution underbuild, and one 138 kV wooden power line pole with an additional 69 kV circuit, would be topped and not completely removed, but the location of these poles are not provided.</p>

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
10	Section 3.3.3.1, Page 3-20	<p>Describe terminal splitting activities for TL 23011 at the Encina Hub and San Luis Rey Substations.</p> <p>The PEA Project Description states the existing TL 23011 would be split from a three terminal design to “create two 2-terminal lines; one connecting Encina and San Luis Rey Substations and the second connecting Palomar Energy and San Luis Rey Substations.” SDG&E Deficiency Response #1, Part A stated: “after further analysis, no work is currently anticipated at Encina or Palomar Energy stations.” Describe remaining terminal splitting activities and locations for TL 23011.</p>
11	Section 3.3.2, Page 3-17 and Table 3-4, Page 3-18; Section 3.4.2.1 and 3.4.2.2, Page 3-31	<p>Describe the equipment that would be used to install and place underground prefabricated vaults, such as cranes.</p> <p>It is assumed that cranes would be required for the initial vault placement. Please confirm construction method and provide further description of the vault delivery and placement process.</p>
12	Section 3.3.6.4, Page 3-25	<p>Describe and identify any associated hardware for structures that would be anchored in the ground, such as temporary or permanent guy poles or wires.</p> <p>The PEA Project Description states grounding rods would be required for structures, but mentions no other hardware extending from the structures that would be anchored in the ground.</p>
13	Section 3.4, Page 3-26	<p>Confirm the amount of soil that will be cut and the amount of soil that will be placed as fill during project construction.</p> <p>The project description states that 21,620 cubic yards of cut and 3,720 cubic yards of fill are estimated for the grading amounts, for a net volume of 7,900 cubic yards of cut. The math does not compute. Provide corrected values for the cut and fill.</p>
14	Section 3.4, Page 3-26; Section 3.4.1.3, Page 3-27	<p>Describe how excavated soils would be “re-used” on work areas and existing ROWs, and identify locations where soil would be “re-used”. Describe proposed excavated material spreading practices, and any differences in the treatment of rock vs. soil spoils.</p> <p>The PEA Project Description states soil collected on site from installing structures and trenching “may be re-used onsite within existing ROWs where extensive grading and excavation is not required in areas of existing access roads, spur roads, and work pads” and “soil would be re-used onsite wherever possible and only transported offsite as the final option.” In addition, “material removed during the process would be spread over existing access roads and work pads as appropriate, or disposed of off-site according to all applicable laws.”</p>
15	Section 3.4.2.1 and 3.4.2.2, Page 3-31 and 3-32; Section 3.4.6.7, Page 3-41; Appendix 3-C	<p>Identify anticipated duct types described in Appendix 3-C that would be installed at specific undergrounding locations, and provide GIS shapefiles of the associated work areas that would be needed to trench and install ducts and vaults.</p> <p>The PEA Project Description describes and Appendix 3-C illustrates typical duct types with a width ranging from approximately 3 to 9 feet, and that trenching work areas would be approximately 25 feet around duct trenching and up to 50 feet around vault locations, and reach a depth of up to approximately 12 feet where trenched. Please provide the anticipated locations of duct and vault types, and the associated work area locations for underground trenching that would be required to install those structures. Identify the vault work areas on the GIS.</p>

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
16	Section 3.4.6.2, Page 3-37; Appendix 3-B	Confirm stringing sites are accurate and would be sufficient in size to achieve all proposed conductor construction activities. The PEA Project Description states that approximately 20 stringing sites would be required for conductor construction activities, and that the addition of or relocation of stringing sites may be needed. The currently mapped location of several stringing sites appear to be outside of the transmission line alignment and the proposed stringing sites do not include space for pulling wire off of lines that would be permanently removed. Confirm that the previously proposed stringing sites are sufficient for all transmission activities. Confirm that no stringing site is needed between poles P30 and P31, where the 138 kV would be reconducted and tied into the Chicarita Substation. Provide updated GIS data with the revised stringing sites, if any.
17	Section 3.6.2, Table 3-14, Page 3-47	Confirm the permanent work area acreage for splice vault man holes. The PEA Project Description states 10 splice vault man holes would include a 94-acre permanent work area. This is assumed to be a typo. Confirm the total size of permanent vault work areas and identify these areas in the GIS.
18	N/A	State whether the new poles and towers will meet raptor safety requirements.
19	N/A	Provide information on the location and construction techniques of the alternate cable pole location in Black Mountain Park. SDG&E discussed an alternate cable pole location during a site visit on July 15, 2014. Additional details are required regarding the alternate cable pole location, underground trench and construction methods including timing of park closure, etc.
20	N/A	Provide records or correspondence with the City of San Diego or other local groups regarding the tree removal concerns in the project underground area and any SDG&E plans to address this issue. During the July 15, 2014 meeting, SDG&E indicated that the City has requested that no trees be removed during undergrounding of the line. SDG&E should indicate how they plan to address the City of San Diego request in constructing their project. Further, SDG&E needs to provide all records of correspondence with the City of San Diego and other interested parties regarding this request because this communication may affect SDG&E's project design.
Aesthetics		
21	Section 4.1	Provide all original baseline photographs and simulations (24 KOPs) used for the analysis at full resolution (CD/DVD preferred).
22	Section 4.1	Provide any additional analysis or matrices used in the determination of significance in the PEA analysis of aesthetic impacts.
Air Quality and Greenhouse Gases		
23	Deficiency Report #1, Item 29	Provide the volume of insulating oil and sulfur hexafluoride that would be used during operation and maintenance of the proposed project. SDG&E response to Deficiency Report #1, item 29 provides a list of hazardous materials that would be used during operation and maintenance of the project. No volumes are provided for these hazardous materials. Will SDG&E require additional insulating oil and SF ₆ gas for operation and maintenance of the proposed project relative to baseline conditions? If so, provide the additional volume of these materials that will be required for the proposed project.

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24	Page 4.3-2	<p>Clarify the method that was used to calculate air pollutant emissions. Provide documentation to support the use of spreadsheets to calculate emissions rather than direct application of CalEEMod modeling.</p> <p>The PEA (Page 4.3-2) states, “This analysis of air quality impacts used the latest version of California Emissions Estimation Model (CalEEMod), Version 2013.2.” Appendix 4.3-A shows that SDG&E did not directly perform CalEEMod modeling; instead, pollutant emissions were calculated using spreadsheets.</p> <p>CalEEMod modeling is commonly used and recommended by government agencies to estimate air pollutant and greenhouse gas emissions for projects in California, as the modeling application provides a uniform platform to estimate pollutant emissions for environmental documents.</p> <p>Please provide appropriate references that support the methodologies of using the emission factors and algorithms of CalEEMod to calculate pollutant emissions for the proposed project via spreadsheets, instead of direct application of CalEEMod modeling. These references should include instructions provided or approved by local agencies and official documents.</p>																																				
25	Appendix 4.3-A	<p>Provide the source for emissions factors used in the model and additional information on the activity data and emissions calculations.</p> <p>We request detailed information on where and how emission factors and other associated data were derived for the spreadsheets in Appendix 4.3-A. Please place footnotes under each table in the spreadsheets to show the page/table number of CalEEMod documents or the screen/sub-screen name of the CalEEMod model where each data was obtained. If the data were derived from other resources, please provide detailed information, including the resource name, output files, and emission factors calculation tables. This should include the source of emission factors for on-road truck running emissions.</p>																																				
26	Appendix 4.3-A	<p>Provide documentation for diesel and off-road truck emissions factors used in Appendix 4.3-A</p> <p>The values of emission factors used in calculating diesel equipment and off-road truck emissions in the PEA are different than those listed in CalEEMod. For example, we obtained 2016 emission factors for generator sets in grams per break horsepower per hour (g/bhp-hr) from Table 3.4 in the CalEEMod User’s Guide Appendix D, and these emission factors are listed in Table A below. For the purpose of comparison, Table A also shows the emission factors used in the PEA for generators in pounds per break horsepower per hour (lb/bhp-hr), and these emission factors in lb/bhp-hr were converted to g/bhp-hr for comparison.</p> <p>Table A Example - Comparison of Emission Factors – Generator Sets 2016</p> <table border="1"> <thead> <tr> <th></th> <th>HP</th> <th>Unit</th> <th>ROG</th> <th>CO</th> <th>NOx</th> <th>SO2</th> <th>PM10</th> <th>PM2.5</th> </tr> </thead> <tbody> <tr> <td>CalEEMod</td> <td>26-50</td> <td>g/bhp-hr</td> <td>1.146</td> <td>4.41</td> <td>4.685</td> <td>0.007</td> <td>0.318</td> <td>0.318</td> </tr> <tr> <td>PEA</td> <td>50</td> <td>lb/bhp-hr</td> <td>0.0013</td> <td>0.0082</td> <td>0.0117</td> <td>0.0000</td> <td>0.0007</td> <td>0.0006</td> </tr> <tr> <td>PEA</td> <td>50</td> <td>g/bhp-hr</td> <td>0.583</td> <td>3.700</td> <td>5.32</td> <td>0.006</td> <td>0.3000</td> <td>0.2670</td> </tr> </tbody> </table>		HP	Unit	ROG	CO	NOx	SO2	PM10	PM2.5	CalEEMod	26-50	g/bhp-hr	1.146	4.41	4.685	0.007	0.318	0.318	PEA	50	lb/bhp-hr	0.0013	0.0082	0.0117	0.0000	0.0007	0.0006	PEA	50	g/bhp-hr	0.583	3.700	5.32	0.006	0.3000	0.2670
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Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
		As shown in Table A, the values of emissions factors for generator sets in CalEEMod and those used in the PEA are different. Therefore, we cannot confirm the sources of emission factors used in the PEA.
27	Appendix 4.3-A	<p>Clarify emissions factor units.</p> <p>In some cases two different units were used for emissions factors in the same equipment column (e.g., emissions factors for generators included pounds per break horsepower per hour and pounds per hour). For different units of emission factors, the calculation algorithms are different. Please place notes next to each piece of equipment to specify what unit is used, if more than two units are used for emission factors in the same calculation table.</p>
28	Appendix 4.3-A	<p>Please provide evaporative, starting and idling emissions for on-road trucks.</p> <p>The PEA only estimates running exhaust emissions for pollutants from on-road truck emissions. The CalEEMod procedure requires estimating startup, idling, and evaporative emissions, in addition to running exhaust emissions.</p>
29	Appendix 4.3-A, Table A-26	<p>Update the CO₂ emission factor for helicopter GHG emissions to be consistent with the cited emissions factors.</p> <p>The methodology for calculating helicopter GHG emissions states that emissions factors from California Climate Action Registry's General Reporting Protocol 3.1 were used. The listed emission factor for jet fuel in Table A-26 is 8.32 kg CO₂/gal. The emission factor in the General Reporting Protocol for jet fuel, however, is 9.57 kg CO₂/gal.</p> <p>Update Table 4.3-10 to account for changes in emissions calculations, if necessary.</p>
30	Appendix 4.3-A, Tables A-32 and B-9	<p>Address the inconsistency between Tables A-32 and B-9 in Appendix 4.3-A.</p> <p>Tables A-32 and B-9 are both labeled as maximum daily mitigated operational emissions. The numbers in the tables differ in PM₁₀ and PM_{2.5} emissions for truck trips. It appears this stems from an error in Table A-30 or Table B-7, which are consistent except for two values: Table A-30 shows no paved road PM₁₀ and PM_{2.5} emissions, while Table B-7 shows paved road fugitive PM₁₀ and PM_{2.5} emissions. Please explain why these numbers are different if they are correct, or fix the error if the tables contain incorrect data.</p> <p>Update Table 4.3-9 to account for changes in emissions calculations, if necessary.</p>
31	Appendix 4.3-A, Tables A-26 and B-4	<p>Address the error in formulas in Table B-4, cells I-69 through I-71, J-69 through J-71, and K-69 through K-71.</p> <p>It appears that the formulas in these cells incorrectly multiply the emissions in tons per day by 30 days instead of 9 days. Please fix this error or explain the apparent discrepancy between the GHG emissions formulas in Table B-4 and Table A-26.</p> <p>Update Table 4.3-10 to account for changes in emissions calculations, if necessary.</p>
32	Appendix 4.3-A, Table B-5	<p>Add N₂O helicopter emissions to the summary GHG emissions table.</p> <p>Helicopter GHG emissions in Appendix 4.3-A, Tables B-4 and A-26 include N₂O emissions, although the relevant cells are hidden in the spreadsheets (cells J-65 through J-61 in Table B-4, and cells J-68 through J-74 in Table A-26). Please update Table B-5 to include N₂O emissions from helicopter operations, or explain why N₂O emissions were excluded from Table B-5.</p> <p>Update Table 4.3-8 to account for changes in emissions calculations, if necessary.</p>

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
33	Section 4.3.4.2, Table 4.3-8, Pages 4.3-22 through 4.3-23	<p>Provide SO_x helicopter emissions in Table 4.3-8.</p> <p>Appendix 4.3-A, Tables B-4 and A-26 contain calculations for SO_x helicopter emissions in hidden cells. These emissions are not included in Table 4.3-8.</p>
Cultural Resources		
34	GIS	<p>Provide GIS Data for the Cultural Resources Survey Area.</p> <p>The CPUC has not received GIS data for the area that SDG&E surveyed for cultural resources. This data is needed to verify that all areas of ground disturbance were previously surveyed.</p>
35	Section 4.5	<p>Provide documentation on consultation efforts with Native Americans.</p> <p>The information provided in the PEA only includes initial contact with Native Americans listed on the NAHC list. There is no information on subsequent discussions or coordination with Native Americans. Please provide any and all further documentation of correspondence with Native Americans regarding the project.</p>
36	Section 4.5.4.4, Page 4.5-23	<p>Address the potential impacts from micropiles on significant paleontological resources.</p> <p>The PEA states that “A (micropile) small borehole diameter (<12 inches) for installation of a single utility pole would typically pulverize subsurface deposits including any fossil remains.” The PEA states, however, that it is assumed that all pole foundations would be constructed using the concrete pier method. If micropiles are to be used or could be used in the future construction, the impact from their use must be addressed in the EIR. Please state whether micropiles could be used or will be used in areas of high paleontological sensitivity.</p>
Geology and Soils		
37	Section 4.6	<p>Provide information on the presence or absence of expansive soils and the erodibility of soils present within the project area.</p> <p>Section 4.6 does not include any environmental setting information pertaining to the presence or absence of expansive soils, nor does it include any information on soil erodibility. Information on these soil characteristics is required so that the impacts related to expansive soils and erosion can be assessed.</p>
Noise		
38		<p>Provide distance planning contours from the line right-of-way, with specific noise impact distance circles around a new pole and a replacement pole. The distance planning contours should include cumulative noise impacts from use of multiple pieces of construction equipment simultaneously.</p> <p>Additional data on noise generation is needed to assess impacts to sensitive receptors located near the pole work areas. SDG&E needs to provide data on noise generation from cumulative construction activities at distances from the pole work areas. The requested mapping of distance planning contours does not need to be shown for each pole, but a representative pole location is needed so that residents and other sensitive receptors could evaluate potential noise impacts.</p> <p>As a part of this exercise, SDG&E will need to identify the equipment that might be used simultaneously and the cumulative noise levels for the simultaneous equipment</p>

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		use.
39	Table 4.10-7	<p>Provide data on peak single-hour noise generation.</p> <p>Table 4.10-7 provides data on noise generation adjusted for an 8-hour work day. Additional data on noise generation is required to analyze noise impacts on sensitive species habitat which looks at the one-hour impacts only.</p>
40	Section 4.10	<p>Provide data on helicopter noise generation including the distance between the helicopter use and nearest sensitive receptors, duration of helicopter use in any given location, and rationale to support this assessment.</p> <p>The report notes that the applicant might set poles or string lines with helicopters, but the report does not contain analysis of the potential helicopter noise including the type of helicopter, duration of helicopter use at each location, locations of use (i.e., locations where helicopters may be used to set poles), and noise levels at distance from the helicopter.</p>
41	Table 4.10-5	<p>Please provide specific measurements of time and duration to support the data in Table 4.10-5: Summary of Ambient Noise Levels.</p> <p>Additional data is required to support the information provided in Table 4.10-5. Noise from transportation noise sources are time variant and continue to drop under most conditions until approximately 3 p.m. and start to show a significant increase at approximately 4:30 p.m. Having a measured value only and saying it is in the evening or night is not a sufficient description of the measurement. A specific time for the measurement and some notation as to the audible source of the noise during the measurement is required. See example below.</p> <p>Example: 9:45 to 9:55 p.m. 52.5 dBA LEQ (10-minutes) adjacent Tower XX, dominant noise source during the measurement was traffic on Scripps Poway Parkway and aircraft overpass (or whatever is accurate to the situation).</p>
42	Section 4.10	<p>Provide cumulative coronal noise emissions for the existing and proposed lines at distance contours from the line.</p> <p>The PEA does not present cumulative coronal noise. Coronal noise is a line source and does not reduce by distance using the normal 6 dBA for doubling-of-distance formula.</p>
43	Section 3 and 4.10	<p>Provide the proposed construction hours and define any activities that may take place outside of the standard proposed construction hours.</p> <p>The PEA does not define normal construction hours or activities that are proposed outside of standard construction hours.</p>
44	Section 4.10.3.3, Table 4.10-5, Page 4.10-8	<p>Provide measured data logs for L1, L25, and L50 sound levels (A-weighted noise levels exceeded 1 percent, 25 percent, and 50 percent of the time, respectively).</p> <p>The data for L1, L25, and L50 sound levels were not provided. These data are needed to define how the noise environment changes over time and assess significant impacts.</p>
45	Section 4.10.4	<p>Provide estimated vibration impacts using the Root Mean Square (RMS) method.</p> <p>Section 4.10.4.3, Vibration. Caltrans provides the following information regarding operational vibration impacts to humans:</p> <p>“PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, average vibration amplitude is more appropriate because it takes time for the human body to respond</p>

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#	PEA Section, Page #	Data Need
		to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). " An analysis based on PPV is not an appropriate method for analyzing human impact, or of drawing a significance conclusion. The vibration analysis should be based on the Root Mean Square (RMS) vibration impacts.
46	Deficiency Report #1, Item #35	Define the activities that are associated with rock blasting (e.g. drilling) and provide the noise levels at distance contours for those associated activities. SDG&E response to Deficiency Report #1, item #35, provides noise levels for the blasting activity as an individual action independent of other activities. There are activities such as drilling that are required for blasting that SDG&E did not provide any noise levels for. Please provide noise levels for all activities that are required for rock blasting.
Population and Housing		
47	Section 4.11.4.2	Clarify discrepancy in number of workers. There is an inconsistency between the Population and Housing Section and the Project Description section. On page 4.11-4 the PEA says that there will be approximately 90 workers per day but on page 3-43 in the project description, it says that there will be approximately 100 workers per day.
Recreation		
48	Section 4.13.4.2	Identify the location and duration of all potential park and trail closures resulting from project construction. Please quantify the duration that recreational resources will become unavailable to recreationists where direct conflicts exist (i.e., where important and heavily used trails will be closed). The PEA states that the access driveway to Black Mountain Park will be closed during trenching, but the park would remain open for use. Define the length of time that the access road to Black Mountain Park would be closed. Is there an alternative access route to Black Mountain Park that could provide access during trenching and installation of the underground line? If there is no alternative access road, how will the park remain open? Define the duration of closure for trails within the Los Peñasquitos Canyon Preserve trail system during construction. Define the current recreational uses (or existing closures) of these trails. If temporary detours are proposed for trail closures, define the locations of the temporary detours and provide the GIS for proposed detours. The stringing site SS8 appears to be in direct conflict with the trailhead and a primary access portal to Black Mountain Open Space Park. Please provide details on an alternative route to access the trail during the life of the construction activities.
49	Section 4.13	Expand on impacts discussion and mitigation to the Trans-County Trail and Cara Way (Class I bike path). The Proposed Project crosses the popular Trans-County Trail at the eastern end of Los Peñasquitos Canyon Preserve. SS6 crosses Cara Way which is a Class I bike path south to Scripps Ranch. East of Knott Memorial Bridge/Old Los Peñasquitos Creek Arch Bridge is the Cara Knott Memorial Garden. Please discuss these recreational resources and how they will be impacted by construction and O&M of the proposed project.

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#	PEA Section, Page #	Data Need
Transportation and Traffic		
51	Section 4.14.4.2	<p>Clarify a discrepancy regarding increases in ADT.</p> <p>On page 4.14-14 there is an estimated increase in ADT for the four CMP system roadways. "The four CMP system roadways carry high to very high volumes of vehicles, and the incremental increase the Proposed Project would result in would be insignificant (0.3 to 0.07 percent increase in ADT)." That range seems incorrect and perhaps it could be a typo. Please clarify the correct range.</p>
51	GIS data	<p>Describe the proposed methods to maintain vehicle access on Carmel Valley Road during construction of Segment B.</p> <p>The 30-foot-wide construction corridor (Appendix A) appears to occupy the majority of Carmel Valley Road within portions of Segment B. Is the remaining width of the roadway sufficient to maintain one lane of traffic in each direction? Identify any areas where traffic may be reduced down to a single lane in the GIS and describe the methods that will be used to maintain emergency access during lane closures.</p>
52	Section 4.14	<p>Identify proposed traffic detours in the GIS data.</p>
53	Section 4.14.4.2	<p>Please provide a table that shows the maximum trips generated during construction for each segment and operation and maintenance of each segment, broken down by trip type (e.g., material or equipment delivery, worker vehicle).</p> <p>SDG&E has provided three separate estimates of construction workers and trips generated: page 4.14-1 of the PEA; Maximum trips; and a table of trips by construction segment. The three estimates do not match. SDG&E should provide one project trip generation estimate for each phase of the construction of each segment. The trips should detail the worker trips and construction equipment trips moving in and out.</p> <p>The PEA does not make the methods used to generate trip estimates obvious. This needs to be provided to justify the numbers being proposed.</p>
54	Table 4.14-2	<p>Provide additional information regarding roads in the project area to define existing traffic volumes, vehicle speeds, number of lanes, and parking.</p> <p>The PEA did not provide adequate information to characterize baseline traffic on arterial, collector, or local roadways. The following information is needed to complete the analysis:</p> <ol style="list-style-type: none"> 1. Speed limit along underground segment of project 2. Current bi-directional ADT counts on all legs of the following intersections: <ol style="list-style-type: none"> a. Black Mountain Road / Carmel Valley Road b. Camino Del Sur / Carmel Valley Road c. Black Mountain Park Driveway / Carmel Valley Road 3. Peak hour turning movement counts, including bikes and pedestrians at the following roads: <ol style="list-style-type: none"> a. Black Mountain Road / Carmel Valley Road b. Camino Del Sur / Carmel Valley Road c. Black Mountain Park Driveway / Carmel Valley Road 4. The source and year of each ADT volume provided in Table 4.14-2.

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
55	Section 4.14	<p>Provide additional data regarding the construction schedule to support the length of road and lane closures for the project.</p> <p>Clearly define the duration of activity for Segment B (excavating, conduit installation, and vault installation) so it is clearly understood how long a traffic control area will be in operation. Indicate the number of traffic control areas that will be open at one time. Segment B is less than 3 miles. If more than one traffic control area is open at a time, it will impact traffic. Define the duration of flagging and detours that are proposed.</p>
56	Section 4.14	<p>Define the methods used to control traffic at intersections where the power line will be constructed underground.</p> <p>Segment B crosses intersections to Carmel Valley Road. Provide the maximum duration of construction at each intersection and the methods used to control traffic at the intersection.</p>
57	GIS	<p>Provide a typical cross-section detailing the location of the proposed work area for underground Segment B.</p> <p>SDG&E describes the width of the proposed work area as up to 50 feet at the location of underground vaults. The available space along this segment needs to be reviewed to verify that the work area can be maintained and still allow for at least one lane of traffic to be open in each direction of travel. Show the location and extent of the underground vault work areas in the GIS.</p>
58		<p>Identify heavy use periods (e.g., tournaments in parks, festivals). What is SDG&E's proposed management of traffic on Carmel Valley Road during heavy use periods (e.g., Shakespeare Festivals, Major Ball games, Balloon festival, etc.)?</p>
60	Section 4.14	<p>Define road closures and traffic management methods for Carmel Valley Road. Additional detail is needed to define the impacts to traffic.</p> <p>For the construction efforts along Carmel Valley Parkway, care must be given to provide access to cars, emergency vehicles, trucks, pedestrians (ADA if possible), bikes and any other vehicles on the route. The plans need to clearly show where ADA passage is not possible and provide clear signage to direct vehicles, bikes and pedestrians. The type of traffic control plan (closure, flagging), the time the control plan is in operation (nights only, off-peak days, etc.) and the duration of the traffic control plan will determine if it impacts traffic significantly.</p> <p>For example at Carmel Valley Road and Black Mountain Park, the PEA mentions that the driveway to the park will be closed. Review of the area shows that the whole intersection will be closed to allow the construction across Carmel Valley Road to the median. A flagging operation would be required to allow all traffic to use the eastbound lane of Carmel Valley Road. Unless temporary cross overs are to be built through the median, the westbound traffic would crossover at the access about 0.75 miles east of the park driveway. The end of the crossover would be at Black Mountain Road / Carmel Valley Road.</p> <p>Provide the duration and timing (hours of day) for traffic management or closure at Black Mountain Road and Carmel Valley Road. Clearly define the approach and methods used to manage traffic at the intersection. Would SDG&E close the intersection at any time and redirect traffic to SR-56?</p> <p>There are subdivisions along Carmel Valley Road that only have one access. These accesses cannot be closed at any time. There are similar situations along the rest of the underground portion of the route. Describe the methods SDG&E will use to</p>

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
		<p>maintain access to these subdivisions during construction.</p> <p>Planned road closures need to be identified now as these typically require prior approval by the municipality or the municipality's council or board. This can require several months and may result in additional mitigation or requirements.</p> <p>Define any alternatives that SDG&E is considering for traffic management on Carmel Valley Road. Provide details for potential alternatives (i.e., timing, duration, location, methods).</p>
61	Section 4.14	<p>Provide access for staging yards.</p> <p>Identify the access (driveways) to the following staging yards:</p> <ol style="list-style-type: none"> 1. Stowe Staging Yard. 2. Carmel Valley Road Staging Yard. It should be located off Camino Del Sur and as far from intersection with Carmel Valley Road, as possible. 3. Torrey Sante Fe Staging Yard 4. Stonebridge Staging Yard <p>Identify any traffic management measures that are proposed to reduce impacts to travelers on area roads as construction vehicles enter and exit staging yards.</p>
62	GIS data	<p>Provide additional details for proposed crossings of SR 56.</p> <p>The proposed transmission line crosses SR 56 at least twice. Will Caltrans require a full closure for these crossings? Guard structures are not shown on page 31 of 45. Can the construction planned at this location be done without Guard structures and a road closure?</p>
Utilities		
63	Page 4.15-5	<p>Provide documentation demonstrating that the City of San Diego Public Utilities Department can supply water for the project, and if not, what are SDG&E's alternatives? Describe how SDG&E estimated the proposed use of 25 million gallons of water during construction.</p> <p>The PEA states that the "Proposed Project is serviced by the City of San Diego Public Utilities Department". The State is currently in a drought. Further information is needed to demonstrate that the City of San Diego can supply water for the Proposed Project. If they cannot, do you have alternate supplies or alternatives to water use? Define the potential applications or uses of water during construction and the amount of water that would be used for each use (e.g., dust control, potable water). The PEA states that up to 25 million gallons of water would be used during construction, but does not define the proposed use or provide rationale for how the water demand was estimated.</p>
General		
64	Application	<p>Clarify that the CAISO functional requirement of at least 1,175 MVA is for the 4-hour emergency capacity. Also identify what the calculated 4-hour emergency ampacity and minimum continuous ampacity is for the proposed 230 kV circuit for the overhead segments and for the underground segments (i.e., which segment is limiting the overall rating for the new transmission line).</p> <p>Section 2.1.3 of the PEA states that SDG&E's proposed project will have a 4-hour emergency ampacity of 2,950 amps (1,174 MVA) and a minimum continuous ampacity of 2,290 amps (917 MVA). It is further described in Section 3.3.1.1 that the overhead portions of the 230 kV circuit will utilize a twin bundle of 900 kcmil for each</p>

Table 1: Application No. 14-04-011 Data Needs

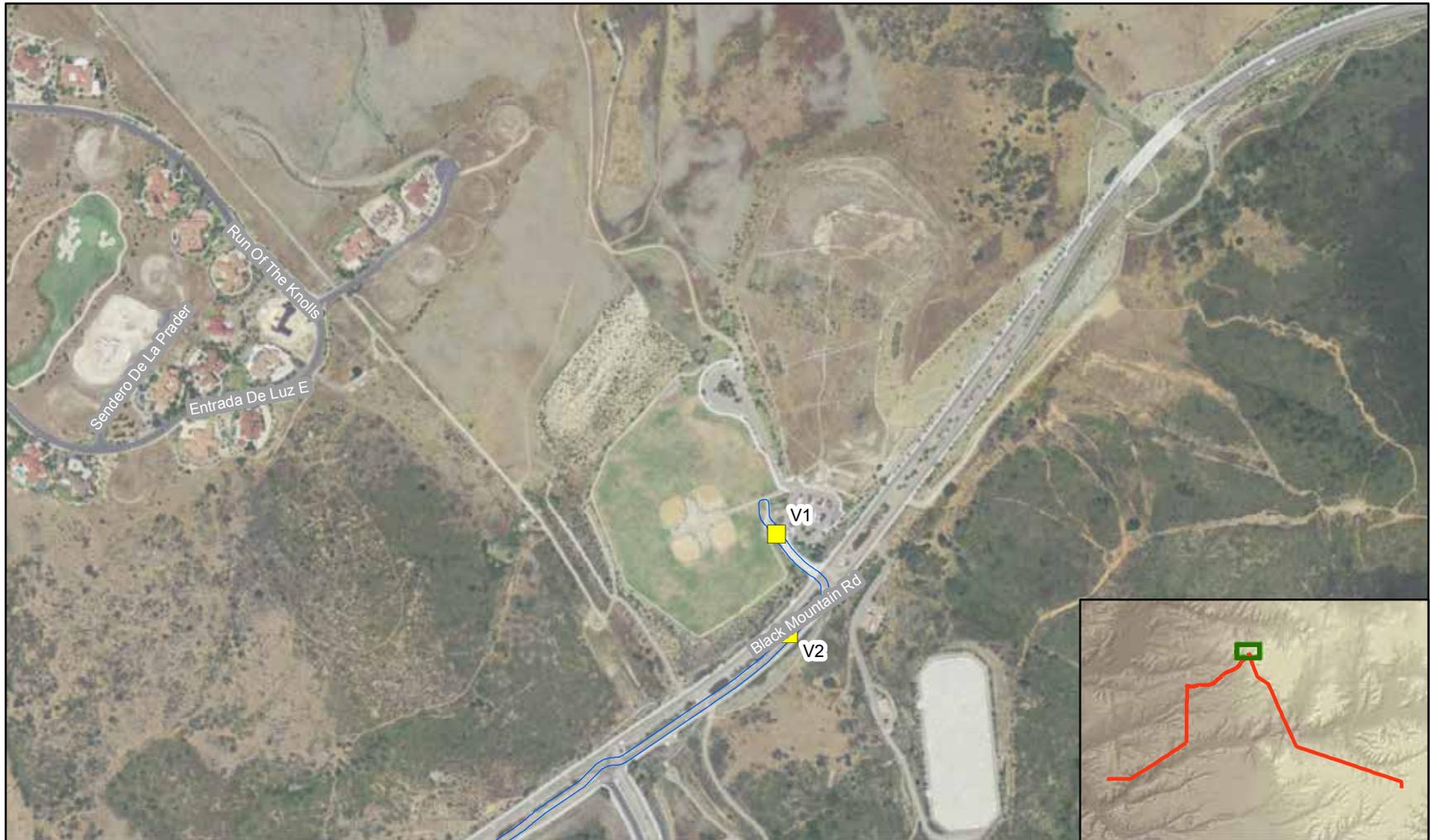
#	PEA Section, Page #	Data Need
		phase of the circuit. Section 3.3.2 notes that the underground portion of the 230kV circuit will utilize twin cables with 4000 kcmil copper conductor for each phase of the circuit.
65	Application	<p>Clarify if the rights SDG&E intends to utilize for the underground segment (Segment B) are within the road right-of-way. Also clarify whether SDG&E franchise rights along Carmel Valley Road are limited to an underground line only, or does SDG&E also have franchise rights for an overhead line. Does SDG&E have overhead or underground power line franchise rights within the City of San Diego?</p> <p>The PEA states that SDG&E has valid easements and franchise rights to construct the proposed 230kV transmission line.</p>
66	Application	<p>Describe how Citizens Energy Corporation (Citizens) electrically connects with Segment B underground in order to utilize their lease? Would additional facilities be needed? Would SDG&E or Citizens install these facilities, if required?</p> <p>In SDG&E's CPCN Application, Section V, subparagraph F.7, page 21, footnote 8 indicates SDG&E has a non-binding Letter of Intent with Citizens whereby SDG&E would grant a lease of 50% of the transfer capability of Segment B on Carmel Valley Road to Citizens.</p>
67	Application	<p>Provide additional information to support the project purpose and need.</p> <p>The following are specific data needs to support the project purpose and need assessment:</p> <ol style="list-style-type: none"> 1) With regard to SDG&E's 33% RPS goal – what is the present level of energy procured and delivered toward that goal? What additional level of energy is required to meet the 33% target by 2020? 2) With regard to the RPS portfolios studied as part of the CAISO's 2012/2013 Final Transmission Plan, what level of existing renewable (contracted and operational) energy made up the RPS portfolio quantity? What location or transmission point of interconnection was the additional RPS energy placed to meet the 33% target? 3) With regard to the Deliverability assessment, is the presumption that all queued generation projects (CAISO transmission and SDG&E distribution) were included in the study or assessment. Is this presumption correct? 4) Further to number 3 above, were the RPS portfolio capacity levels added to the deliverability energy level? Were "proxy" levels used and, if so, where were the injection points? 5) The CAISO's 2012/2013 Final Transmission Plan identifies alternatives to the Project to mitigate high voltage system overloads identified in the Deliverability assessment such as: <ul style="list-style-type: none"> • Miguel – Bay Boulevard 230 kV line; • Miguel – Mission #1 and #2 230 kV lines; • Mission – Old Town 230 kV line; and • Silvergate – Bay Boulevard 230 kV #1 <p>The CAISO further notes that some of these overloads can be mitigated by way of Special Protection Schemes (SPS). With regard to the CAISO's identified alternative mitigation, what is the associated cost and time to implement these identified mitigation alternatives?</p> <ol style="list-style-type: none"> 6) For the Deliverability assessment was the Carlsbad Energy Center modeled as replacement for Encina Units 1, 2, and 3.

Table 1: Application No. 14-04-011 Data Needs

#	PEA Section, Page #	Data Need
		7) What would be the effect on the identified overloads if increasing renewable energy, especially base load geothermal energy from Imperial County, were provided a parallel path to the Southwest Power Link (SWPL) and the Sunrise Power Link to the SDG&E load pocket at the SONGS substation, potentially reducing the impact on Sycamore?

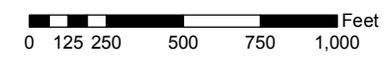
Attachment A: Segment B Work Area

CPUC Sycamore-Penasquitos Segment B ROW Map 1 of 5



Legend

-  Underground Structure
-  Segment B Buffer

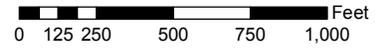


CPUC Sycamore-Penasquitos Segment B ROW Map 2 of 5

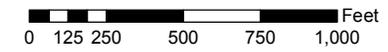
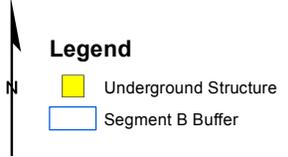
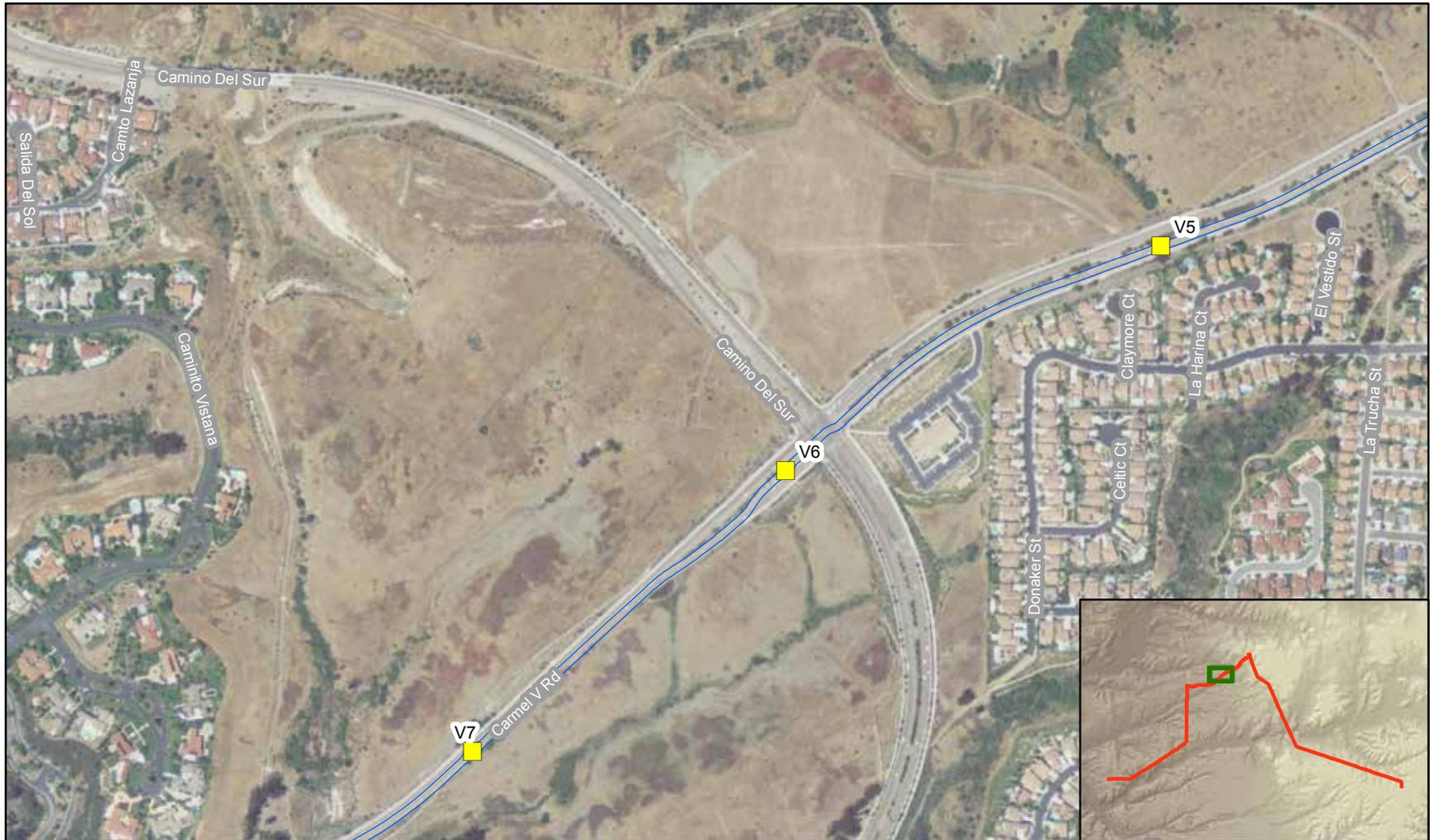


Legend

-  Underground Structure
-  Segment B Buffer



CPUC Sycamore-Penasquitos Segment B ROW Map 3 of 5

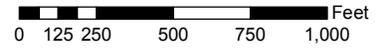


CPUC Sycamore-Penasquitos Segment B ROW Map 4 of 5

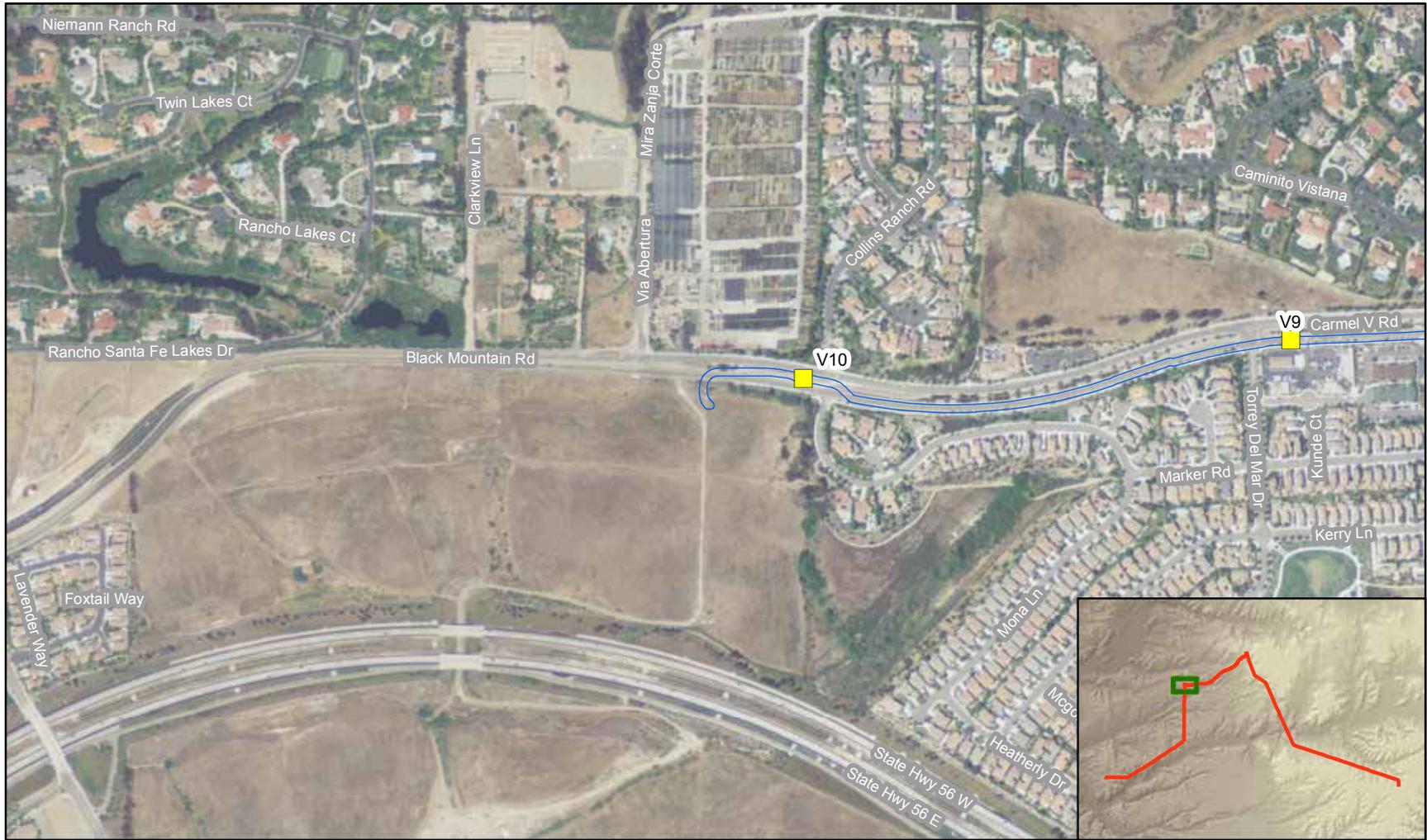


Legend

-  Underground Structure
-  Segment B Buffer



CPUC Sycamore-Penasquitos Segment B ROW Map 5 of 5



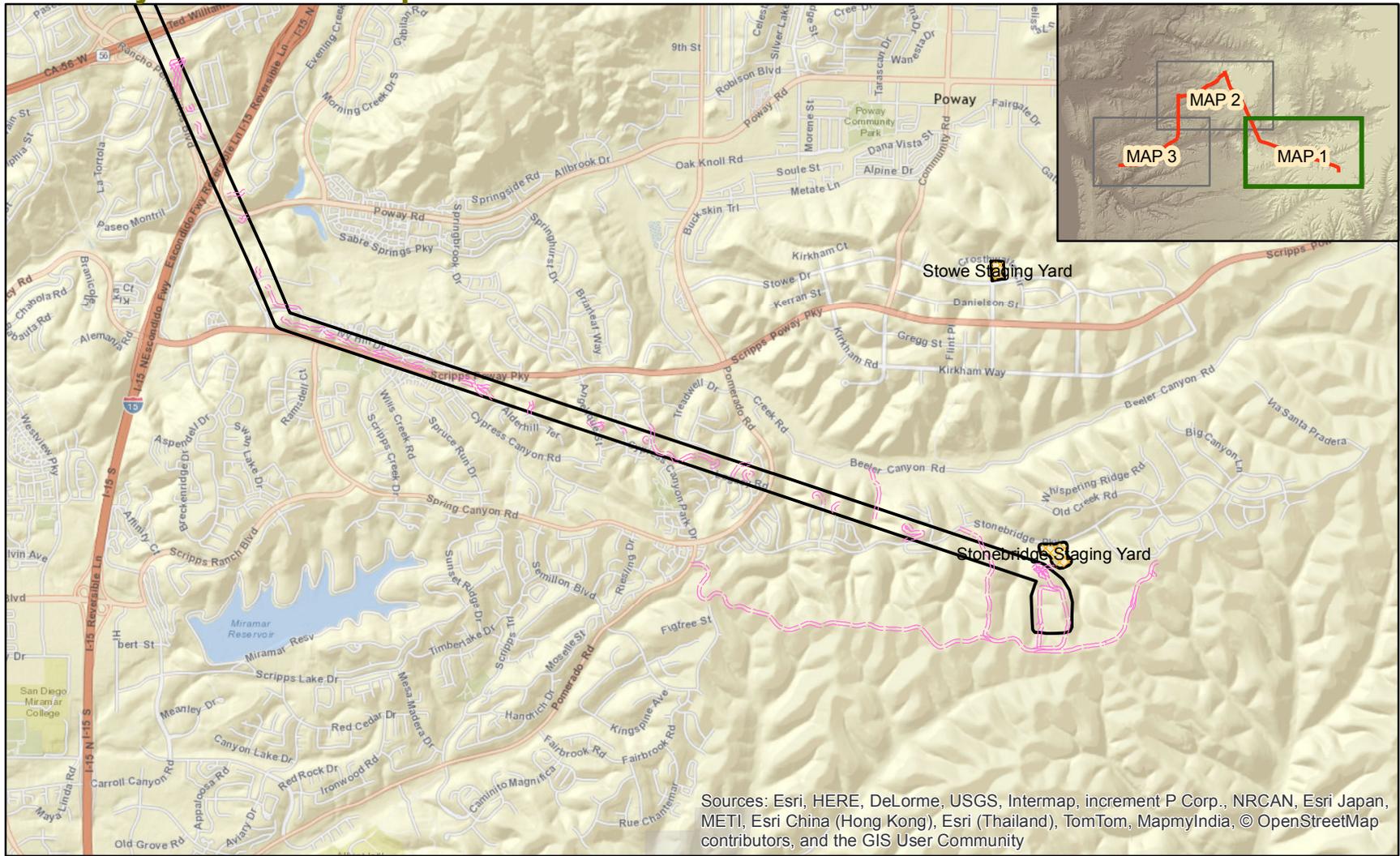
Legend

-  Underground Structure
-  Segment B Buffer



Attachment B: Access Roads and Biological Study Area

CPUC Sycamore-Penasquitos Access Roads for Evaluation



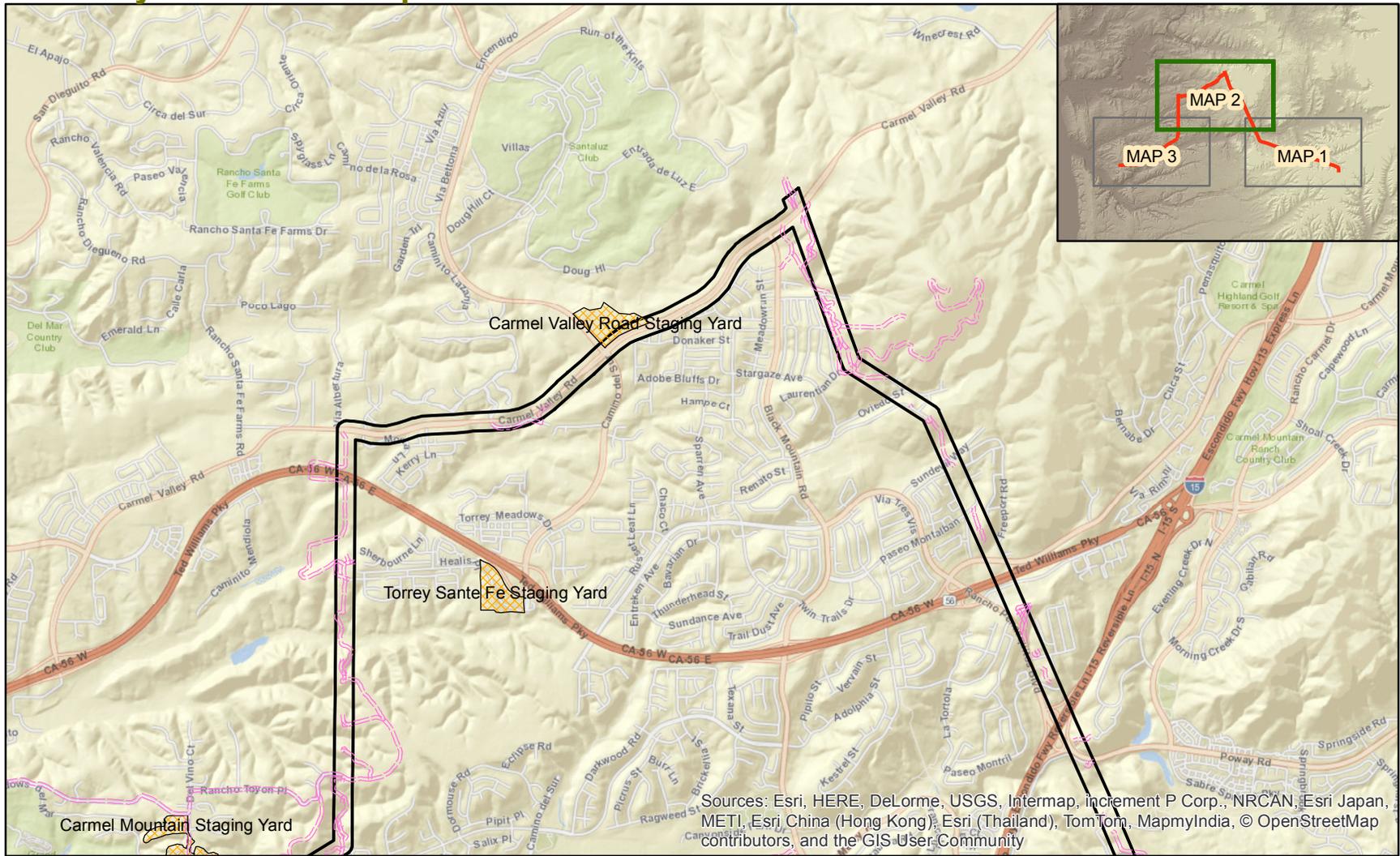
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- Legend**
- Access Road
 - Staging Yard
 - Biological Survey Area

Map 1 of 3



CPUC Sycamore-Penasquitos Access Roads for Evaluation



Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

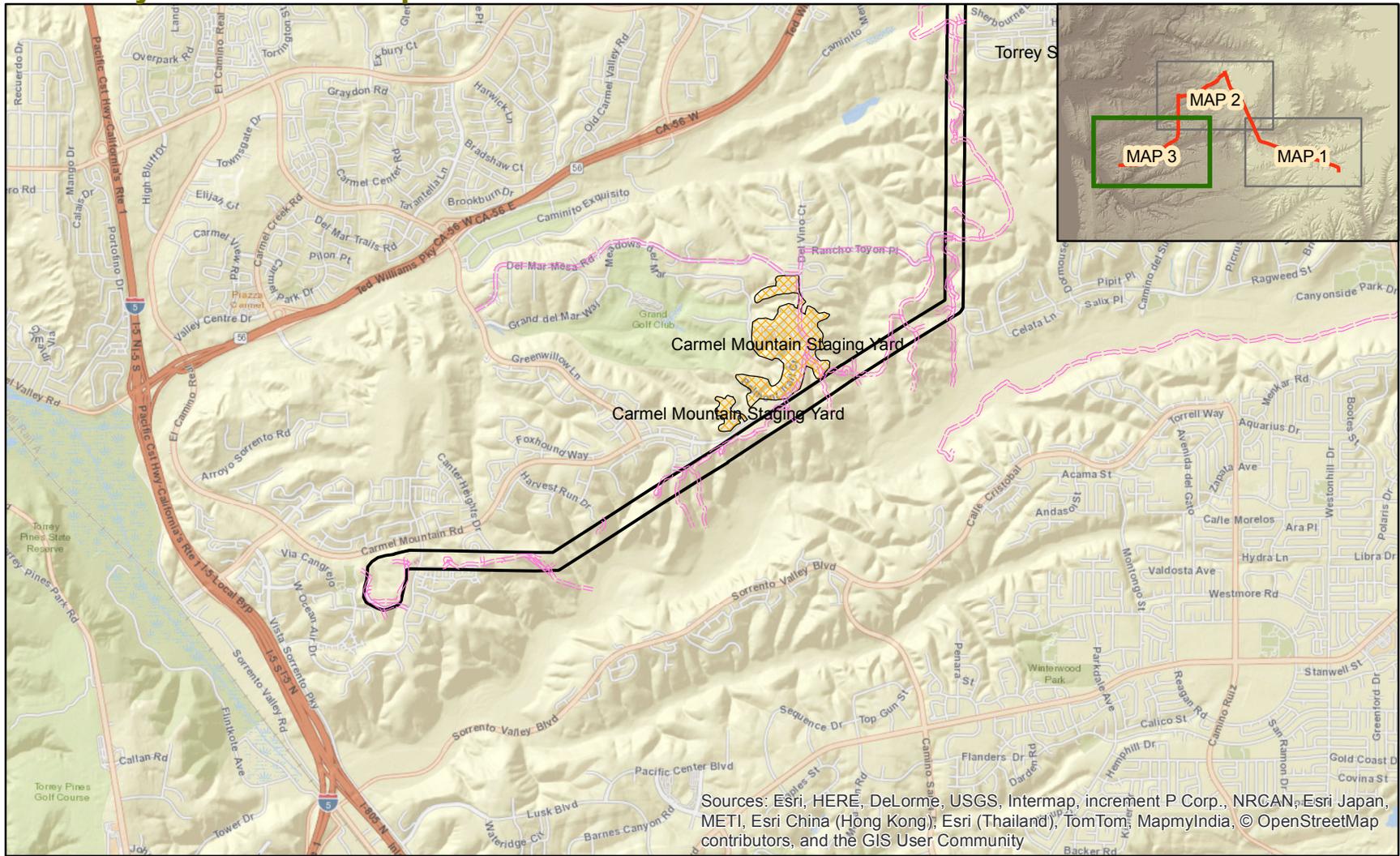
Legend

- Access Road
- Staging Yard
- Biological Survey Area

Map 2 of 3



CPUC Sycamore-Penasquitos Access Roads for Evaluation



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Legend

-  Access Road
-  Staging Yard
-  Biological Survey Area

Map 3 of 3

