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October 20, 2009

Mr. Iain Fisher
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Mr. Fisher:

Thank you for the September 2, 2009 Completeness Review for the Proponent's Environmental Assessment (PEA) for the East County (ECO) Substation Project (Proposed Project) and subsequent letter dated October 2, 2009 deeming ECO's Permit to Construct and PEA complete. Per our discussion, there were several outstanding items that were preconditions to the completeness determination. As you are aware, on September 18, 2009 San Diego Gas & Electric Company (SDG&E) submitted responses to the Chapter 2: Project Purpose and Need question and provided the cost per component in order to address the deficiencies specified in Addendum 1 of the October 2, 2009 letter. This letter is intended to respond to each of the remaining questions from the Completeness Review.

Chapter 1 – PEA Summary

Please provide the following:

- a. Attachment 1-B: Please provide stakeholder list as an electronic file (excel format).**

The stakeholder list in Excel format has been provided on the enclosed CD.

Chapter 3 – Project Description

Please provide the following:

- a. Section 3.4, Page 3-11: Connected Actions: Energia Sierra Juarez Gen-Tie Project. Please provide geographic information system (GIS) layers of Gen-Tie project from SWPL tie-in to point of origin.**

During our call on September 9, 2009, we agreed that this information will be obtained by the California Public Utilities Commission (CPUC) directly from the individual generation project proponents.

- b. Section 3.4, Page 3-11: Connected Actions. Please provide location and update on proposed wind development project that the Gen-Tie project would connect to in Mexico. Please provide information on project phasing, total number of turbines proposed, and general description (i.e., height and location of turbines).**

During our call on September 9, 2009, we agreed that this information will be obtained by the CPUC directly from the individual generation project proponents.

- c. Section 3.4, Page 3-11: Connected Actions: Iberdrola Tule Wind Project. Please show the Iberdrola Tule Wind Project location on Figure 4.16-1 or other aerial/land use base map with scale. Please provide update on the County of San Diego and Bureau of Land Management (BLM) environmental process. Please provide location and update on proposed Gen-Tie location of where it would connect with the Boulevard Substation.**

During our call on September 9, 2009, we agreed that this information will be obtained by the CPUC directly from the individual generation project proponents.

- d. Section 3.4, Page 3-11. Please provide information on other known wind projects that will tap into the ECO or Boulevard substations.**

A preliminary response to this question was provided in the letter submitted to the CPUC on August 12, 2009. During our call on September 9, 2009, SDG&E explained the confidential nature of this information. SDG&E is required by the California Independent System Operator Federal Energy Regulatory Commission (FERC) approved tariff and also FERC Order 890 to maintain the confidentiality of the Proposed Projects' information.

Section 4.1 – Aesthetics

Please provide the following:

- a. Section 4.1. Information regarding the type of materials and colors to be used for the proposed project elements is included on page 3-25 (Project Description). However, additional information is needed regarding materials and colors to be used for insulators and other hardware.**

During our call on September 22, 2009, the CPUC agreed that sufficient information was provided in SDG&E's letter to the CPUC dated August 12, 2009. To recap, a discussion regarding the materials for the transmission line can be found in Chapter 3 – Project Description, Section 3.5.2 138 Kilovolt (kV) Transmission Line. The components used to construct the 138 kV line will all have non-reflective surfaces. The insulators will be constructed of a gray polymer, the conductors will be made from aluminum-wrapped steel, and the transmission poles and hardware will be galvanized steel. SDG&E will consider the use of weathering steel for the transmission poles.

- b. Pages 4.1-11 and 4.1-12. Regarding the White Star Communication Facility, text states that two wooden poles would be replaced with a single steel pole, 75 feet in height, and that the existing storage facility would be replaced with a prefabricated storage facility of similar color and size. Height of the existing structures to be replaced is requested.**

Two poles, one 61.5 feet tall and the other 76.8 feet tall, will be replaced with a single 75-foot-tall pole. The existing 8-foot-tall pre-fabricated storage facility will be replaced with a 9-foot-tall pre-fabricated storage facility.

- c. View Point 31: Visual effects of the proposed Boulevard Substation from Old Highway 80. The PEA provides a simulation (No. 31) of the proposed substation from a vantage point that does not fully show the expanded substation from Old Highway 80. The existing viewpoint and simulation are appropriate for showing the cable riser structure and a portion of the new substation only. An additional simulation, or a panoramic simulation, should be provided to illustrate the full visual impacts from Old Highway 80.**

The new simulation has been included in Attachment A: Boulevard Substation Rebuild Visual Simulation and on the enclosed CD. Figure 1A presents a before and after view looking toward the Boulevard Substation rebuild site from Old Highway 80 (Viewpoint 31). This wide-angle view, taken from about 300 feet north of the proposed substation rebuild site, encompasses the existing substation and access road on the right, the substation rebuild site in the center, and Old Highway 80 on the left. From this location the unpaved access road appears in the foreground with various utility poles seen in the foreground and middleground against the skyline with part of the existing Boulevard Substation also visible on the far right. In the foreground, a mature canopy tree surrounded by shrub- and scrub-covered land occupies the center of this panoramic view. A light-colored single-story residence surrounded by mixed vegetation appears at the left side of the substation rebuild site and exposed rock-covered hillsides can be seen in the backdrop, at the far left. The visual simulation shows a close range view of the rebuilt Boulevard Substation, including the new entry drive and graded slopes near the center of the view. Above these graded slopes, portions of the new perimeter fence and substation equipment are visible. The simulation also shows the proposed removal of an existing residence and mature canopy tree located at the rebuild site, as well as the removal of the existing Boulevard Substation structures. New substation elements are visible in the area to the left of the existing access road. However, because they are partially screened by existing foreground vegetation and appear against a landscape backdrop, these new low-profile substation structures are not visually prominent. Lower portions of the two new 65-foot-tall transmission poles located to the right of the substation also appear against a landscape backdrop with the upper parts extending into the sky. The line and form of the new poles are generally similar to the existing vertical utility structures currently seen in the view. Given the character of this landscape setting, the new poles are not particularly noticeable. However, the new 140-foot-tall steel cable

riser pole seen just to the right of the access road could appear somewhat prominent against the skyline.

Figure 1B shows the substation with proposed landscaping at approximately eight years of maturity. This simulation portrays the Proposed Project with the installation of clusters of oak trees and native shrubs near the access drive and along the north side of the site. The Proposed Project landscaping will appear in the foreground, largely concealing portions of the substation that were visible in the previous simulation image, which shows the Proposed Project without landscaping. The simulation image demonstrates that Proposed Project landscaping will effectively screen views of the substation from this portion of eastbound Old Highway 80. Proposed Project landscaping will also improve the aesthetic integration of the new facility with its visual setting. The Viewpoint 31 visual simulation also portrays the appearance of the Boulevard Substation with the 140-foot-tall steel cable riser pole relocated approximately 650 feet to the south and further from Old Highway 80 (APM-AES-03). The visual simulation indicates that while visible, with the incorporation of APM-AES-03, the cable riser pole will not be particularly noticeable when seen within the context of the existing landscape setting.

d. Please provide all photos and simulations as .jpg files.

All photographs and simulations that support the aesthetics analysis have been provided on the enclosed CD.

Section 4.3 – Air Quality

Please provide the following:

- a. Table 4.3-11: Peak Daily Construction Emissions. This table does not reflect the overlap of different project elements. Please provide the peak daily construction emissions associated with overlapping construction phases.**

As requested during the September 8, 2009 call, SDG&E has also included a worst-case scenario for emissions that reflects the cumulative air emissions associated with overlapping construction phases in Table 1: Cumulative Daily Construction Emissions. SDG&E has also reevaluated the current construction schedule presented in the PEA. In order to reduce the peak daily construction-related emissions, SDG&E is proposing to shift the start of construction on the 138 kV Transmission Line to September 2011 and the start of construction of the White Star Communication Facility to October 2011. Table 1: Cumulative Daily Construction Emissions reflects the emissions associated with these changes to the schedule. These changes to the Proposed Project's schedule will also reduce the peak greenhouse gas (GHG) emissions from construction-related activities. If requested, revised GHG emissions can be provided.

Table 1: Cumulative Daily Construction Emissions

Pollutant	San Diego County CEQA Guideline Screening Significance Threshold (pounds per day)	Peak Daily Cumulative Emissions (pounds per day)	Number of Months Where the Screening Threshold is Exceeded	Average Cumulative Emission (pounds per day)
PM _{2.5}	55	26.81	0	16.60
PM ₁₀	100	99.25	0	49.16
NO _x	250	374.17	8	206.00
SO _x	250	5.79	0	0.35
CO	550	343.04	0	173.21
VOC	75	65.16	0	25.91

SDG&E does not believe that adding all five Proposed Project component emissions together provides a representative assessment of actual potential air emission impacts. The five Proposed Project components range in separation from approximately three to 11.5 miles apart. In particular, impacts related to the emissions of particulate matter will be localized to the individual Proposed Project components. Other pollutants, such as ozone precursors, should be considered in the context of the entire region as the conversion to ozone often occurs miles from the source. The ECO Substation is located less than one mile from the Imperial County border, which has been proposed by the United States (U.S.) Environmental Protection Agency and California Air Resources Board to be designated attainment for the federal and state eight-hour ozone standards, respectively. For these reasons, SDG&E believes the emissions of each of the five Proposed Project components should be displayed separately if the Commission determines that a cumulative total should also be presented.

Nevertheless, as requested, SDG&E has calculated both the peak cumulative and average emission rates in pounds per day in Table 1: Cumulative Daily Construction Emissions based on the revised schedule for Proposed Project construction. When considered cumulatively, construction of the Proposed Project may exceed the NO_x screening significance threshold during eight months of the anticipated 23-month-long construction schedule. The exceedences range from 9.39 pounds per day to 76.60 pounds per day. Based on the revised schedule, no other standards will be exceeded.

To allow for further assessment of emissions, the emissions from construction activities have been presented in tons per year. The Federal Clean Air Act conformity requirements provide a threshold of 100 tons per year for the emission of any nonattainment and maintenance pollutants. This threshold is provided as a tool for evaluating the significance of emissions resulting from federal agency actions.

As shown in Table 2: Cumulative Annual Construction Emissions, construction-related emissions from the Proposed Project will not exceed the 100 tons per year threshold.

Table 2: Cumulative Annual Construction Emissions

Pollutant	Annual Emissions (tons per year)		
	2010	2011	2012
PM _{2.5}	2.36	2.26	0.64
PM ₁₀	9.02	5.96	0.75
NO _x	15.00	31.74	17.39
SO _x	<0.00	0.02	0.02
CO	7.13	30.67	16.41
VOC	1.70	4.00	1.98

Construction emissions can vary significantly depending many factors, including the levels and types of activity, specific equipment types in use, and soil and weather conditions. This variability makes the exact quantification of future emissions due to the construction of the Proposed Project challenging. As a result, the data presented in Table 1: Cumulative Daily Construction Emissions, Table 2: Cumulative Annual Construction Emissions, and the PEA is the result of conservative estimates of the anticipated activity levels during construction. Due to this conservative approach, actual Proposed Project emissions will likely be less than what is reported above.

In an effort to ensure that Proposed Project emissions will remain below the threshold for NO_x, SDG&E is proposing the following additional applicant-proposed measures (APMs):

- APM-AIR-14: All off-road diesel-powered construction equipment will be kept in good tune and maintained according to the manufacturer’s specifications.
- APM-AIR-15: All off-road diesel engines with a rated output of greater than 100 horsepower will, at a minimum, meet the Tier II California Emissions Standards for Off-Road Compression Ignition Engines. If reasonably available, Tier III engines will be employed.

With the implementation of these APMs, even the Proposed Project impacts to air quality considered cumulatively across the Proposed Project are expected to be less than significant.

- b. Operation emissions. The URBEMIS model assumes operation of two generators at the ECO Substation while the Project Description states only one generator would be located at the ECO Substation. Please clarify.**

The URBEMIS modeling prepared for the Proposed Project does not include the emissions related to the operation of backup generators at the ECO Substation. The emissions from these generators have been analyzed outside of the URBEMIS model and are documented in Attachment 4.3-A: Proposed Project Emissions Calculation Methodology of Section 4.3: Air Quality. As stated in Attachment 4.3-A, two diesel-powered backup generators will be installed at the ECO Substation. The information contained within Chapter 3 – Project Description is incorrect and should have been revised to match Attachment 4.3-A. As a result, the emissions associated with the operation of both backup generators at the ECO Substation were accounted for.

- c. Section 4.3.4 (APM-AIR-08). Please provide specific reasoning as to why APM-AIR-08 limits active grading to 12.8 acres. Please identify if APM-AIR-08 accounts for overlapping construction schedules.**

During our call on September 10, 2009, the CPUC agreed that sufficient information was provided in SDG&E's letter to the CPUC dated August 12, 2009. To recap, this APM has been included to limit the fugitive dust emissions from grading at the ECO Substation and to ensure that PM₁₀ emissions at the ECO Substation are reduced to less than the 100-pounds-per-day threshold set by the San Diego County Air Pollution Control District.

- d. Attachment 4.3-A states that helicopter emissions were estimated using URBEMIS (i.e., helicopters are considered "other general industrial equipment"). The URBEMIS "other general industrial equipment" category does not include aircraft (it does include on-ground equipment). Helicopter emissions should be estimated using the Federal Aviation Administration's (FAA's) Emission and Dispersion Modeling System (EDMS). Note that the use of the FAA's EDMS is required for general conformity determinations.**

Of the five Proposed Project components, only the URBEMIS runs for the 138 kV Transmission Line included the use of a helicopter. The helicopter (categorized as "other general construction equipment") has been removed from the URBEMIS input files and the simulation has been rerun. In addition, the FAA's EDMS was used to simulate the use of helicopters during construction. The 240 helicopter operating hours that are expected during construction of the 138 kV transmission line were divided equally between two different types of helicopter—the Bell 206 Jet Ranger and the Sikorsky CH-53E Super Stallion. The following input parameters were used to characterize their use during construction:

- Takeoff – approximately 9 minutes
- Approach – approximately 9 minutes
- Landing – approximately 1 minute

- Taxi time – approximately 22 minutes each way
- Landings and Takeoffs – 240 annually total (120 per helicopter type)

The results of the revised URBEMIS simulation, the EDMS simulation, and the resulting cumulative emissions are presented in Table 3: Revised 138 kV Transmission Line Construction Emissions.

Table 3: Revised 138 kV Transmission Line Construction Emissions

Pollutant	URBEMIS (pounds/day)	EDMS (pounds/day)	Total (pounds/day)
PM _{2.5}	16.03	Not Available (NA)	16.03
PM ₁₀	67.96	NA	67.96
NO _x	237.08	19.60	256.68
SO _x	0.18	5.77	5.95
CO	177.77	70.40	248.17
VOC	26.18	37.53	63.71

The resulting output files from URBEMIS and EDMS have been included as

Section 4.4 – Biological Resources

Please provide the following:

- Tables 4.4-2 and 4.4-3, page 4.4-41: There are discrepancies in the temporary and permanent impact acreages provided in Tables 4.4-2 and 4.4-3 compared to the impact areas depicted on Figure 3-4. Please clarify the discrepancies listed in Table 1, PEA Discrepancies.**

This issue is addressed in the response to each discrepancy in Table 5: PEA Discrepancies at the end of this letter.

- Is SDG&E preparing a wetland delineation for the proposed project? If yes, what is the timing of completion? Please provide a copy of the report when it is complete for inclusion in the EIR/EIS analysis.**

A wetland delineation will not be prepared for the Proposed Project because there are no potential wetland features that will be impacted by Project activities. SDG&E will conduct jurisdictional determination studies of the desert washes that will be impacted during construction of the ECO Substation in order to determine if the washes are considered waters of the U.S. by the U.S. Army Corps of Engineers (USACE). The jurisdictional determination study will be submitted to the USACE to secure Nationwide Permits for the Proposed Project. A copy of the study will also be provided to the CPUC upon completion.

Section 4.9 – Land Use and Planning

Please provide the following:

- a. Please provide all parcels within 300 feet of the proposed project with the following information:
- b. APN number
- c. Mailing address
- d. Parcel's physical address.

A table containing this information has been included in . This information has also been included in Excel format on the enclosed CD.

- e. To differentiate between property owners and the project stakeholders, please provide separately from Attachment 1-B, Stakeholder List.

The separated list of property owners is provided in . The separated stakeholders list that does not include the property owners is provided in . Both of these lists are provided in Excel format on the enclosed CD.

Section 4.10 – Noise

Please provide the following:

- a. Please provide in the CadnaA files the applicable input information, such as the identifying construction and operations noise modeling receptor sites, source to receptor distances, etc. for the construction and operations noise levels. Also, provide the output files.

The input parameters for the CadnaA simulations have been included with the PEA as Attachment 4.10-A: CadnaA Noise Model Input and Calculation Sheets. The following files have been included on the enclosed CD and contain the receptor grid values for the construction and operation simulations performed at the ECO and Boulevard substations:

- ECO Construction Grid.rst
- ECO Operation Grid.rst
- Boulevard Construction Grid.rst
- Boulevard Operation-Day Grid.rst
- Boulevard Operation-Night Grid.rst

- b. Please provide calculations demonstrating that construction equipment noise and helicopter noise can be feasibly mitigated. The PEA analysis relies on APMs and the short-term nature of construction to arrive at a less-than-significant impact conclusion.**

The major sources of construction noise will be heavy equipment used to clear and grade the access roads and install foundations for each tower. In addition, helicopters may be used to install structures and conductors. The noise level generated by operating a rock drill or a helicopter is approximately 95 A-weighted decibels (dBA) at a distance of approximately 12.5 feet and 200 feet, respectively. Rock drilling activity may occur approximately four hours per day and helicopter activity is not expected to exceed 10 minutes per day at any one location. Occupied parcels zoned as residential whose boundaries are located approximately 90 feet and 235 feet of these activities, respectively, may experience temporary noise levels in excess of 75 dBA when averaged over an eight-hour period.

The supporting calculations for determining these distances are as follows:

Rock drills: d is the distance from the noise source that an eight-hour average would exceed 75 dBA:

$$75 \text{ dBA} = 95 \text{ dBA} - 20 * \log\left(\frac{d}{12.5 \text{ feet}}\right) + 10 * \log\left(\frac{4 \text{ hours}}{8 \text{ hours}}\right)$$

Helicopters: d is the distance from the noise source that an eight-hour average would exceed 75 dBA:

$$75 \text{ dBA} = 95 \text{ dBA} - 20 * \log\left(\frac{d}{200 \text{ feet}}\right) + 10 * \log\left(\frac{20 \text{ minutes}}{(8 \text{ hours} * 60 \frac{\text{minutes}}{\text{hour}})}\right)$$

- c. Please evaluate construction noise in terms of the 8-hour average sound level between the hours of 7 a.m. and 7 p.m. per Section 36.409 of the County of San Diego Noise Ordinance.**

The noise contours in Figure 4.10-5: ECO Substation Average Construction Noise Contour and Figure 4.10-6: Boulevard Substation Average Construction Noise Contour were generated using eight-hour averages. All calculations provided in the enclosed responses have also been performed using eight-hour averages.

- d. Please incorporate the County's impulsive noise standards (Section 36.410 of County Noise Ordinance) and if applicable also evaluate potential noise impacts based on these standards.**

The County of San Diego Noise Ordinance Section 36.410 recently incorporated the following limitations for impulsive noise:

In addition to the general limitations on sound levels in section 36.404 and the limitations on construction equipment in section 36.409, the following additional sound level limitations shall apply:

(a) Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410A, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410A are as described in the County Zoning Ordinance.

TABLE 36.410A. MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA)

OCCUPIED PROPERTY USE	DECIBELS (dBA)
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

(b) Except for emergency work, no person working on a public road project shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 36.410B, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period, as described in subsection (c) below. The maximum sound level depends on the use being made of the occupied property. The uses in Table 36.410B are as described in the County Zoning Ordinance.

TABLE 36.410B. MAXIMUM SOUND LEVEL (IMPULSIVE) MEASURED AT OCCUPIED PROPERTY IN DECIBELS (dBA) FOR PUBLIC ROAD PROJECTS

OCCUPIED PROPERTY USE	DECIBELS (dBA)
Residential, village zoning or civic use	85
Agricultural, commercial or industrial use	90

(c) The minimum measurement period for any measurements conducted under this section shall be one hour. During the measurement period a measurement shall be conducted every minute from a fixed location on an occupied property. The measurements shall measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise, exceeds the maximum sound level for any portion of any minute it will be deemed that the maximum sound level was exceeded during that minute.

As a result of this impulsive noise standard, construction-related noise in excess of the following significance thresholds will be considered significant:

- Less than 82 dBA maximum sound pressure level (L_{max} or Maximum SPL) for residential, village zoning or civic land use.
- Less than 85 dBA maximum sound pressure level (L_{max} or Maximum SPL) for agricultural, commercial or industrial land use.

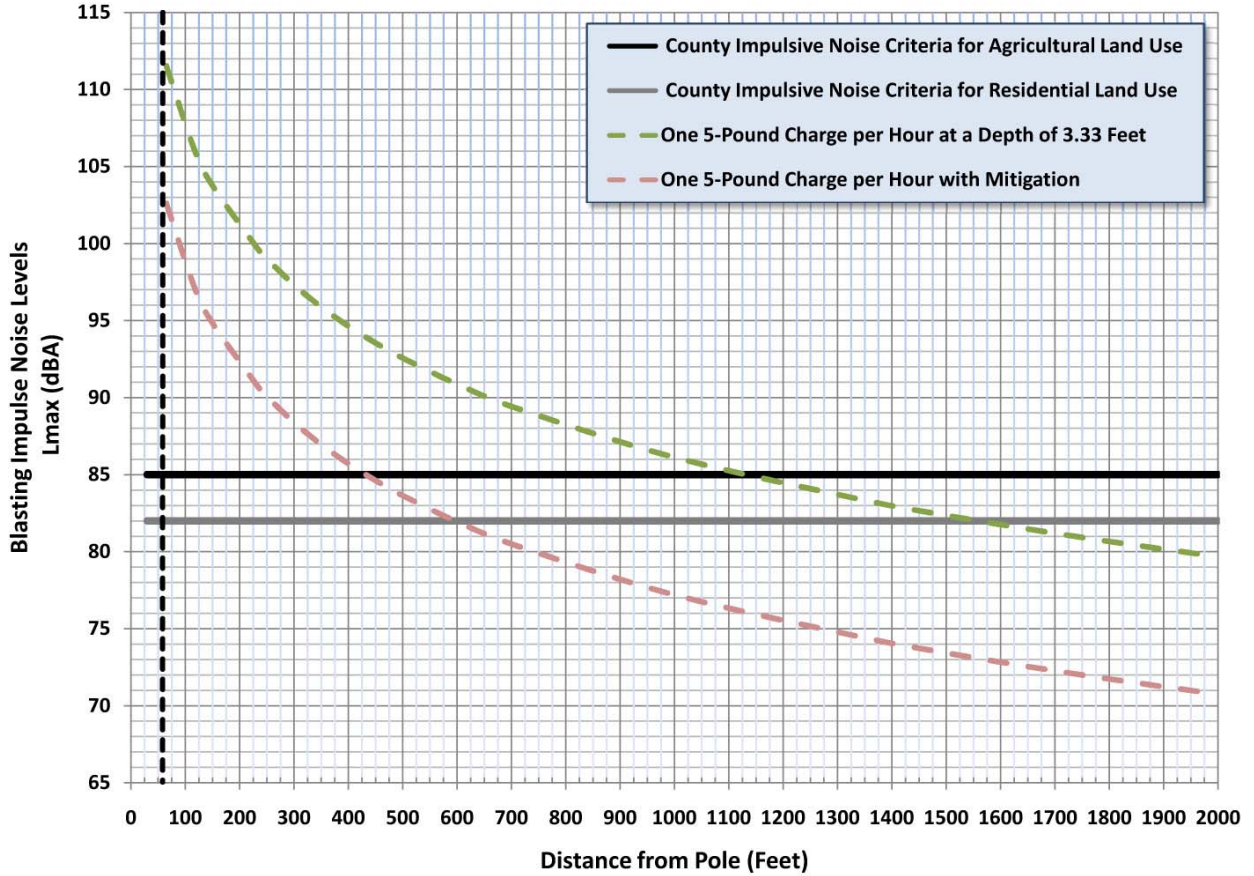
The primary source of impulsive noises will be blasting activities required to facilitate excavation in areas where rocks are found. Blasting activities will typically involve drilling multiple two-inch-diameter holes into the rock to a depth between 40 inches and 15 feet, so that the pole holes can ultimately be excavated to a depth of approximately 15 feet. Charges, typically weighing between 2.5 and five pounds each, will then be inserted into each hole. The charges will then be detonated sequentially, limiting the blasting-related noises to one individual charge at a time. Smaller charges and/or multiple blasting operations may be utilized to further limit blasting-related noise levels at individual pole holes.

The noise resulting from blasting was calculated assuming five-pound charges would be used. The maximum noise level using this scenario has been depicted using a dashed light green line on Figure 1: Blasting Impulsive Noise Levels.

Based upon the previous assumptions, any blasting occurring without mitigation would exceed San Diego County's impulsive noise standard at the boundary of any parcel used for agricultural purposes at a distance of approximately 1,100 feet, and for residential purposes at a distance of approximately 1,550 feet. These noise levels were simulated a second time assuming that five-pound charges will be used and soil, rubberized blankets, and/or steel plates will be placed over the area to be blasted to reduce the resulting noise levels. This mitigated noise level has been depicted in Figure 1: Blasting Impulsive Noise Levels using a dashed pink line. The County's impulsive noise standards would be exceeded for agricultural land uses at a distance of approximately 430 feet and for residential land uses at a distance of approximately 600 feet. Covering the charge area will also reduce the amount of airborne debris from the blasting. To further reduce the noise from blasting, 2.5-pound charges could be used (reducing the charges would attenuate the blasting

noise by approximately 3 dBA) and temporary sound reduction barriers (walls or blankets) may be installed between the blast area and sensitive receptors.

Figure 1: Blasting Impulsive Noise Levels



As a result, any residential parcels within approximately 600 feet and agricultural parcels within approximately 430 feet of blasting activities would be exposed to potentially significant impulsive noise levels. SDG&E will implement the following additional APM to ensure that impacts are less than significant:

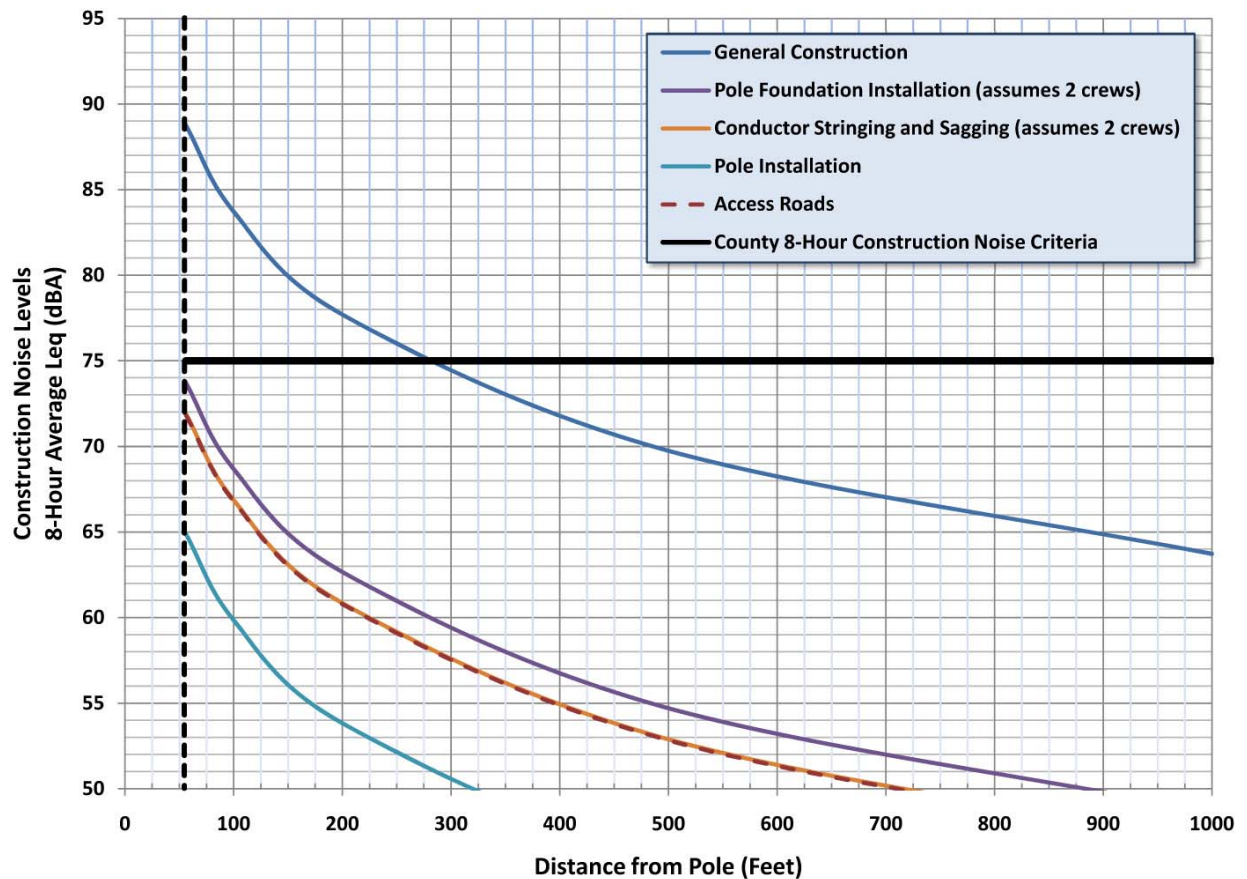
- APM-NOI-04: The use of explosives to assist with the excavation of rock will be prohibited within 600 feet of the boundary of any occupied parcels zoned for residential use and within 430 feet of the boundary of any occupied parcels zoned for agricultural use. If the use of explosives cannot be avoided in these locations, SDG&E will temporarily relocate the impacted occupants on an as-needed basis for the duration of the explosive use in their locations.

e. Please determine the construction and operational noise levels at the nearest property lines.

Construction and operational noises at the ECO and Boulevard substations were simulated using CadnaA. The results of these simulations and the nearest property lines are presented in Figure 4.10-5 through Figure 4.10-9 of the PEA.

The construction-related noises at the 138 kV Transmission line were also simulated. A typical construction scenario was created for each of the five activities that are expected to occur at each pole. The results of the simulated noise levels for each activity were compared against the San Diego County construction noise threshold and are depicted on Figure 2: 138 kV Transmission Line Construction Noise Levels.

Figure 2: 138 kV Transmission Line Construction Noise Levels



The dashed vertical black line in the preceding figure represents a distance of 56 feet (the distance from the transmission pole to six feet beyond the temporary right-of-way [ROW]). This distance represents a worst-case scenario where the transmission line's alignment spans the boundaries of occupied residentially zoned parcels. At this distance, the eight-hour average noise level is expected to be below the 75 dBA noise threshold for all construction activities except for General

Construction. During General Construction, SDG&E expects to use helicopters to assist with the construction of the transmission line. As a result, occupied residentially zoned parcels whose boundaries are within approximately 275 feet of the transmission line may experience periods where the eight-hour average noise level is above 75 dBA.

As described in the PEA, the corona noise from the operation of the 138 kV transmission line is expected to be below all applicable noise thresholds.

- f. **For the fixed-location distribution or transmission facilities located on or adjacent to a property line, please also identify the noise levels at 6 feet from the boundary of the easement upon which the facility is located if the noise levels exceed the applicable criteria beyond the facilities property line or easement.**

As depicted in the Figure 2: 138 kV Transmission Line Construction Noise Levels, during construction and without implementation of the APMs, construction noise at the 138 kV Transmission Line could peak at 89 dBA when averaged over an eight-hour period.

- g. **Please verify the Leq and L10 legend symbols in Figure 4.10-2. It is unusual for the Leq to be greater than the L10 value.**

Figure 4.10-2 incorrectly represents the data collected at the Downtown Jacumba survey location. Table 4.10-4: Sound Measurement Survey Results in the PEA should be revised as indicated in Table 4: Revised Sound Measurement Survey Results.

Table 4: Revised Sound Measurement Survey Results

Measurement	138 kV Transmission Line Downtown Jacumba		Boulevard Substation		ECO Substation and SWPL Loop-In	
	Day	Night	Day	Night	Day	Night
L _{eq}	58	52	58	57	46	37
L ₍₁₀₎	58	47	59	58	45	37
L ₍₅₀₎	49	39	58	57	40	33
L ₍₉₀₎	43	32	57	57	37	30

Note: All measurements are reported in dBA

In addition, a revised Figure 4.10-2 has been included as

and

on the enclosed CD.

Section 5.2. – Alternatives

Please provide the following:

- a. Please provide supporting information and studies used for the conclusions reached in the environmental impacts for all alternatives evaluated and for those eliminated.**

The following information is provided on the enclosed CD to support the alternatives evaluation contained in the PEA:

- San Diego County Agricultural Preserve data layer, accessed February 6, 2008
- State of California, Department of Conservation Farmland Mapping and Monitoring Program and Williamson Act data layer, accessed February 6, 2008
- San Diego County Scenic Highways website, accessed February 4, 2008
- Campo Kumeyaay Nation website, accessed February 5, 2008
- California Natural Diversity Database records within one mile, five miles, and 10 miles of the Proposed Project area, accessed February 12, 2008
- Critical habitat data for Peninsular bighorn sheep and Quino checkerspot butterfly from the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper, accessed March 2008
- 17 Cultural records found for the A-3, A-4, B-2, and B-5 sites, accessed from the South Coastal Information Center
- National Wetlands Inventory data layers from the USFWS National Wetlands Inventory Wetlands Mapper, accessed April 2008
- Blue line drainage data layers from ESRI, accessed April 2008
- Geology of the Jacumba area, San Diego and Imperial Counties Map Sheet 23
- Ketchum Ranch website, accessed June 2008
- Public Lands Information Center website, accessed February 5, 2008

PEA Discrepancies

The discrepancies found in the PEA as well as their page numbers and responses can be found in the attached Table 5: PEA Discrepancies.

In addition to the requested material, we have also included a complete set of cultural resource site records for the Proposed Project, as the previous set was incomplete. We greatly appreciate the CPUC's continued efforts to review the PEA. Should you have any further questions, please do not hesitate to contact me at 858-637-7914.

Sincerely,

Linda Wrazen
Regulatory Case Administrator

Table 5: PEA Discrepancies

Page Number	Discrepancy	Response
Chapter 3, Project Description		
3-12	3rd paragraph: Text states that a single stationary generator (size not given), to be used as a backup to the station lights and power transformers, will be installed at the ECO Substation. In Attachment 4-3 (page 4.3-2) the text states that two diesel powered generators (200 kW and 100 kW) will be installed at the ECO site. More info on generator(s) is needed.	Chapter 3 – Project Description should state that two diesel-powered generators will be used as a backup at the ECO Substation. The analysis performed in Section 4.3 Air Quality correctly accounts for the emissions of these two generators.
3-37	Section 3.5.4: Text states that one backup generator would be installed at White Star (Attachment 4-3 states one propane generator will be installed). More information on the generator is needed.	One 25 kW propane-powered generator will be installed at the White Star Communication Facility.
3-38	Section 3.6.0: Text states SWPL loop-in would require 7 acres of land; however, Table 3.1 and dimensions given in text (200 feet x 2,285 feet) state that 10.5 acres of land would be required.	The two references to the size of the Southwest Powerlink (SWPL) loop-in's permanent land requirements should be revised. The SWPL loop-in's centerline length measures approximately 2,345 feet. The proposed 200-foot-wide easement will require approximately 10.8 acres. It should be noted that portions of this easement overlap with the permanent and temporary land requirements for the ECO Substation.
3-38	Section 3.6.1: Text states temporary workspace for each 138 kV transmission line pole location would be 50 x 50 feet; however, Table 3.3 (Temporary Workspace Requirements) states 70 feet x 70 feet for steel poles and 30 feet x 30 feet for wood distribution poles.	The values provided in Table 3.3: Temporary Workspace Requirements are correct. The text on page 3-38 provided an average temporary workspace size that accounts for the variations at each pole and the different size requirements for angle and tangent structures.
3-45	Figure 3-21: Figure does not show the new dirt access road proposed to be constructed to access the facility (according to text on page 3-49, one dirt access road, 35 feet long x 20 feet wide would be constructed from Tierra Del Sol Road to the facility). Please provide diagram of access road.	Figure 3-21: White Star Communication Facility Site Plan has been revised to include the proposed dirt access road. This figure has been included as Attachment F: Revised Figure 3-21: White Star Communication Facility Site Plan and on the enclosed CD.
3-67	There is a discrepancy between the peak construction personnel presented in Table 3-6 and the construction workers assumed in Attachment 4-3, Emissions Calculation Methodology. Since construction of components overlap, it would be helpful to provide peak personnel according to schedule as well as for project components.	The number of operators in Table 3-6: Peak Construction Personnel should be as follows: <ul style="list-style-type: none"> • ECO Substation: 82 • SWPL Loop-in: 24 • 138 kV Transmission Line: 53

Page Number	Discrepancy	Response
		<ul style="list-style-type: none"> • Boulevard Substation: 29 • White Star Communication Facility: 5 <p>Cumulatively, approximately 168 operators will be on site simultaneously.</p>
Sections 3 and 4.4, Biological Resources – Temporary and Permanent Impacts		
NA	There are discrepancies between this section and the project description regarding temporary and permanent impact acreages.	These discrepancies have been clarified below.
4.4-41	Between Figure 3-4 (plus 2 acres of staging yards not identified on figure) and Table 4.4-2, there seems to be a discrepancy of 0.71 acre. It should be noted that the construction buffer depicted on Figure 3-4 is not identified as a temporary workspace requirement in Table 3-3 (Temporary Workspace Requirements). Rather, it is listed as a new permanent land requirement of the ECO Substation (approximate dimensions are described as 20-foot-around fencing). The acreage for the buffer, as stated in Table 3-1, is 4.5 acres. If the construction buffer is intended to be 1,028,423 feet minus 876,902 feet (square footage of the permanent slope and grading impacts depicted on Figure 3-4), the acreage of the buffer would be approximately 3.48 acres. If this is the intention then it is unclear what the 24.9 acres identified in Table 4.4-2 accounts for.	<p>The “buffer” provided in Table 3-1: New Permanent Land Requirements is accounted for as “Permanent Substation and Access” in Figure 3-4: ECO Substation Temporary and Permanent Impact Areas. This buffer is a 20-foot-wide area surrounding the fencing at the 500 kV and 230/138 kV yards. Collectively, the fenced area of the 500 kV and 230/138 yards will require approximately 58.3 acres. The yards and the buffer outside of the fenced area will require approximately 62.5 acres. As a result, the buffer will require approximately 4.2 acres.</p> <p>The 24.9 acres in Table 4.4-2: Vegetation Community Temporary Impacts in Acres was calculated from the GIS data and includes the following:</p> <ul style="list-style-type: none"> • Construction buffer • ECO Substation staging areas • SWPL loop-in temporary construction areas <p>less the following:</p> <ul style="list-style-type: none"> • Access roads • A 0.96-acre portion of the temporary construction buffer that was located outside of the area surveyed during the vegetation communities mapping effort • 138 kV transmission line-specific work areas that were located within the ECO Substation construction buffer

Page Number	Discrepancy	Response
4.4-41	In Table 3.3, temporary impacts of the transmission line is listed as 33.6 acres. In Table 4.4-2, vegetation community temporary impact in acres is listed as 28.54 acres (a discrepancy of 5.06 acres).	The figures presented in Table 3.3 Temporary Workspace Requirements were generated using the average approximate size of each type of workspace. The figures presented in Table 4.4-2: Vegetation Community Temporary Impacts in Acres were generated using calculations from GIS design data. The discrepancies between the two sets of figures occur because each temporary workspace has been designed to accommodate changes in terrain and access at each pole location. As a result, these work areas are all of a unique size and shape. The most precise numbers are, therefore, those generated by the GIS data. However, all numbers should be considered approximate and are associated with preliminary design, so they are subject to change.
4.4-41	Between Figure 3-4 and Table 4.4-3, there seems to be a discrepancy of 4.05 acres. According to Table 3-1, cut-and-fill slopes require 25 acres, not 20.13 acres as depicted on Figure 3-4. Adding the additional 4.87 acres (25 acres minus 20.13 acres) results in a total of 89.64 acres, which is nearly 1 acre greater than the value presented in Table 4.4-3. It should be noted however that in Table 3-1, the total new project land requirement for the ECO Substation is stated as 87.5 acres.	<p>The permanent slope and grading impacts area depicted on Figure 3-4: ECO Substation Temporary and Permanent Impact Areas should be revised to approximately 23.4 acres (1,019,304 square feet) according to the GIS data. Table 3-1: New Permanent Land Requirements provides the approximate size of the permanent slope and graded area as 25 acres, overestimating the land requirements.</p> <p>Table 4.4-3: Vegetation Community Permanent Impacts in Acres describes the total permanent vegetation impact at the ECO Substation and SWPL loop-in to be 88.82 acres. This area was calculated from the GIS data and includes the following:</p> <ul style="list-style-type: none"> • ECO Substation pads and 20-foot-wide buffer • Access roads to the ECO Substation and SWPL loop-in towers • SWPL loop-in tower footprints

Page Number	Discrepancy	Response
4.4-41	Regarding the 138 kV transmission line: Table 3-2 (Project Access Roads) states that 5.25 acres of new dirt access roads to the new transmission structures will be required. Table 4.4-3 lists the permanent vegetation impact area associated with the transmission line as 4.74 acres (a 0.51 acre difference between these two tables). Also, Table 3-1 doesn't specify the acreage required for each new transmission and distribution structure (the table only considers the transmission line right-of-way (ROW)).	<p>The values in Table 3-2: Project Access Roads were developed using the approximate length and average width of the Proposed Project's access roads. The figures presented in Table 4.4-3: Vegetation Community Permanent Impacts in Acres were generated using calculations from the GIS design data, where the access roads varied in width and shape. As a result, the calculations prepared for Table 3-2: Project Access Roads overestimate the required permanent impacts associated with the 138 kV transmission line.</p> <p>Table 3-1: New Permanent Land Requirements does not include the individual structure footprints because the transmission line ROW acreage is inclusive of the structures. The total impacted area of the transmission pole footprints is 0.04 acre.</p>
Section 4.5, Cultural Resources – Table 4.5-3:		
NA	Discrepancies between the information provided in the PEA and the information provided in the Cultural Resources Technical Report (TR): Please clarify which descriptions/dates are correct.	These discrepancies have been clarified below.
4.5-12	<p>Site description of 7011H is not consistent</p> <p>Date recorded for sites 7046, 7055, 7080H, and 7086 not consistent (PEA:1979, TR:1978)</p> <p>7060 updated (2006) in PEA, date recorded in TR is 1979</p> <p>Date recorded for 7051 not consistent (PEA 1981, TR 1979)</p> <p>Date recorded for 9156 not consistent (PEA 1981, TR 1978)</p> <p>Date recorded for 9278H not consistent (PEA 1982, TR 1979)</p> <p>Date recorded for 9279 not consistent (PEA 1982, TR 1979).</p>	<p>The site description for CA-SDI-7011H is an early twentieth century homestead with associated historic artifacts/sparse flaked lithic and prehistoric ceramic scatter.</p> <p>The date recorded for SDI-7046, -7055, -7080H, and 7086 is 1979, as presented in the PEA.</p> <p>The date recorded for SDI-7060 is 2006, as presented in the PEA.</p> <p>The date recorded for SDI-7051 is 1981, as presented in the PEA.</p> <p>The date recorded for SDI-9156 is 1981, as presented in the PEA.</p> <p>The date recorded for SDI-9278H is 1982, as presented in the PEA.</p> <p>The date recorded for SDI-9279 is 1982, as presented in the PEA.</p>

Page Number	Discrepancy	Response
<i>Cultural Resources Technical Report</i>		
4	Figure 1-2, ECO Substation Project Area: This figure is not consistent with Figure 3-5, ECO Substation Layout of the PEA. Please confirm impact analysis is accurate with differences in facility layout.	This figure was not changed because the Cultural Resources Technical Report was based on an earlier alignment for the 138 kV line. The information in the Cultural Resources Technical Report is applicable to the Project as proposed because it covers the ultimate alignment of the 138 kV line.
24	Site 7015H: Text states 138 kV transmission line would span the SD&AE RR at two locations; however, according to Figure 4.9-1, the RR would be spanned at three locations.	The railroad is spanned at three locations.
<i>Section 4.7, Hazards and Hazardous Materials</i>		
4.7-9	Second Paragraph, 138 kV transmission line: Phase I reconnaissance indicated the agricultural fields near MP 3.1 are an item of concern on the basis that fertilizer tanks were observed at the site. The PEA text states (with no reference or source) that the fields are part of a certified organic farm and, therefore, do not pose a risk to the transmission corridor.	The fertilizer tanks that were observed at the agricultural fields do not contain chemical pesticides, but rather natural pesticides—such as rosemary oil—and are therefore, not an item of concern. The farm is a certified organic farm, owned by Bornt and Sons, Inc. More information on this certified organic farm can be found here: http://www.ccof.org/directories.php . This information was not known at the time the Phase I reconnaissance work was conducted.
4.7-14	Table 4.7-1: Carrizo Gorge Railway is identified as occurring between MP 7 and 8. According to the Phase I ESA, Carrizo Gorge Railway occurs within MP 5.	The railroad is crossed between Mileposts 7 and 8, between Mileposts 3 and 4, and between Mileposts 10 and 11.
4.7-14	Table 4.7-1: 1509 Starship Lane is identified as occurring between MP 7 and 8. In the Phase I ESA, 1509 Starship Lane occurs within MP 12.	Table 4.7-1 of the PEA depicts 1509 Starship Lane occurring between Mileposts 11 and 12, which is consistent with the Phase 1 Environmental Site Assessment.
4.7-14	Table 4.7-1: Remaining sites beginning with the Boulevard Transfer Station are identified as occurring between MP 12 and 13.3. In the Phase I ESA, these sites are identified as occurring within MP 14.	This discrepancy is a result of changes to the alignment of the 138 kV transmission line that resulted in the line ending at Milepost 13.3, when it previously ended at Milepost 14. The Phase I ESA was conducted prior to the alignment changes.
4.7-14	Table 4.7-1: Jacumba Burnsite 1 and 2, Jacumba Texaco Gas Station and the Caltrans Boulevard Facility are identified as no risk sites. According to Phase I ESA, these sites are identified as data gaps.	Jacumba Burnsite 1 and 2, Jacumba Texaco Gas Station, and the Caltrans Boulevard Facility were identified as no risk sites in the PEA due to their distance from the Proposed Project area and the limited size of the excavations required for each pole along the 138 kV line alignment (6 to 8 feet in diameter at each pole location).

Page Number	Discrepancy	Response
Section 4.14, Transportation		
4.14-4	Tables 4.14-1 and 4.14-2: Tables list a range of levels of service (LOS) for roadways. Please provide reference for the LOS information.	<p>The reference for the LOS information is contained in the References section of the Transportation and Traffic section and follows:</p> <p>Lizama, Naomi. County of San Diego – Department of Public Works. Road Registrar. Personal communication with R. Curley, Opus Environmental. April 30, 2008. (858) 694-2266.</p>

ATTACHMENT A: BOULEVARD SUBSTATION REBUILD VISUAL SIMULATION



Existing view from Old Highway 80 looking south toward Boulevard Substation (VP 31)



Visual Simulation of Proposed Project

Refer to PEA Figure 4.1-1
for viewpoint location

Source: Environmental Vision



Existing view from Old Highway 80 looking south toward Boulevard Substation (VP 31)



Visual Simulation of Proposed Project with landscaping at 8 years maturity and APM-AES-03*

Refer to PEA Figure 4.1-1
for viewpoint location

*APM-AES-03 relocates the
proposed cable riser pole
approximately 650 feet
to the south.

Source: Environmental Vision

ATTACHMENT B: URBEMIS AND EDMS SIMULATION RESULTS

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Urbemis 2007 Version 9.2.4

Combined Annual Emissions Reports (Tons/Year)

File Name: B:\Project\SDGE\urbemis_update\Revised Urbemis 9-09\9-21-09 SDGE 138Kv transmit.urb924

Project Name: SDGE 138 kV line

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (tons/year unmitigated)	1.69	15.21	11.64	0.01	5.17	0.60	5.77	1.09	0.55	1.64	2,630.43
2011 TOTALS (tons/year mitigated)	1.69	15.21	11.64	0.01	2.14	0.60	2.74	0.45	0.55	1.01	2,630.43
Percent Reduction	0.00	0.00	0.00	0.00	58.57	0.00	52.46	58.18	0.00	38.59	0.00

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)							

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.49	1.69	5.71	0.01	0.07	0.06	549.05

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (tons/year, unmitigated)	0.49	1.69	5.71	0.01	0.07	0.06	549.05

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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2011	1.69	15.21	11.64	0.01	5.17	0.60	5.77	1.09	0.55	1.64	2,630.43
Mass Grading 02/01/2011-04/30/2011	0.08	0.67	0.37	0.00	5.12	0.03	5.15	1.07	0.03	1.10	68.44
Mass Grading Dust	0.00	0.00	0.00	0.00	5.12	0.00	5.12	1.07	0.00	1.07	0.00
Mass Grading Off Road Diesel	0.08	0.67	0.32	0.00	0.00	0.03	0.03	0.00	0.03	0.03	63.53
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.91
Trenching 03/01/2011-06/30/2011	0.21	2.02	0.77	0.00	0.00	0.07	0.07	0.00	0.06	0.06	298.25
Trenching Off Road Diesel	0.21	2.01	0.66	0.00	0.00	0.07	0.07	0.00	0.06	0.06	287.01
Trenching Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.24
Building 06/01/2011-08/31/2011	0.71	6.31	5.29	0.01	0.03	0.25	0.28	0.01	0.23	0.24	1,140.51
Building Off Road Diesel	0.48	4.27	1.51	0.00	0.00	0.17	0.17	0.00	0.16	0.16	518.94
Building Vendor Trips	0.15	1.91	1.39	0.00	0.01	0.07	0.09	0.00	0.07	0.07	381.87
Building Worker Trips	0.08	0.13	2.39	0.00	0.01	0.01	0.02	0.00	0.01	0.01	239.70
Building 10/01/2011-12/31/2011	0.70	6.22	5.21	0.01	0.03	0.25	0.27	0.01	0.23	0.24	1,123.23
Building Off Road Diesel	0.48	4.20	1.49	0.00	0.00	0.17	0.17	0.00	0.16	0.16	511.08
Building Vendor Trips	0.15	1.89	1.37	0.00	0.01	0.07	0.09	0.00	0.07	0.07	376.09
Building Worker Trips	0.08	0.13	2.35	0.00	0.01	0.01	0.02	0.00	0.01	0.01	236.06

Phase Assumptions

Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road
Total Acres Disturbed: 38.85
Maximum Daily Acreage Disturbed: 8
Fugitive Dust Level of Detail: Default
20 lbs per acre-day
On Road Truck Travel (VMT): 0

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Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 5 hours per day
- 1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 3 hours per day
- 1 Plate Compactors (8 hp) operating at a 0.43 load factor for 5 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 5 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 5 hours per day

Phase: Trenching 3/1/2011 - 6/30/2011 - Pole foundation installation

Off-Road Equipment:

- 2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 5 hours per day
- 4 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

Phase: Building Construction 6/1/2011 - 8/31/2011 - Pole installation

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day
- 3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day
- 15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Phase: Building Construction 10/1/2011 - 12/31/2011 - Conductor stringing and sagging

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day
- 3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day
- 15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day

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2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Annual Tons Per Year, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011	1.69	15.21	11.64	0.01	2.14	0.60	2.74	0.45	0.55	1.01	2,630.43
Mass Grading 02/01/2011-04/30/2011	0.08	0.67	0.37	0.00	2.09	0.03	2.12	0.44	0.03	0.47	68.44
Mass Grading Dust	0.00	0.00	0.00	0.00	2.09	0.00	2.09	0.44	0.00	0.44	0.00
Mass Grading Off Road Diesel	0.08	0.67	0.32	0.00	0.00	0.03	0.03	0.00	0.03	0.03	63.53
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.91
Trenching 03/01/2011-06/30/2011	0.21	2.02	0.77	0.00	0.00	0.07	0.07	0.00	0.06	0.06	298.25
Trenching Off Road Diesel	0.21	2.01	0.66	0.00	0.00	0.07	0.07	0.00	0.06	0.06	287.01
Trenching Worker Trips	0.00	0.01	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.24
Building 06/01/2011-08/31/2011	0.71	6.31	5.29	0.01	0.03	0.25	0.28	0.01	0.23	0.24	1,140.51
Building Off Road Diesel	0.48	4.27	1.51	0.00	0.00	0.17	0.17	0.00	0.16	0.16	518.94
Building Vendor Trips	0.15	1.91	1.39	0.00	0.01	0.07	0.09	0.00	0.07	0.07	381.87
Building Worker Trips	0.08	0.13	2.39	0.00	0.01	0.01	0.02	0.00	0.01	0.01	239.70
Building 10/01/2011-12/31/2011	0.70	6.22	5.21	0.01	0.03	0.25	0.27	0.01	0.23	0.24	1,123.23
Building Off Road Diesel	0.48	4.20	1.49	0.00	0.00	0.17	0.17	0.00	0.16	0.16	511.08
Building Vendor Trips	0.15	1.89	1.37	0.00	0.01	0.07	0.09	0.00	0.07	0.07	376.09
Building Worker Trips	0.08	0.13	2.35	0.00	0.01	0.01	0.02	0.00	0.01	0.01	236.06

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas							
Hearth							
Landscape							
Consumer Products							
Architectural Coatings							
TOTALS (tons/year, unmitigated)							

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Annual Tons Per Year, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
General heavy industry	0.49	1.69	5.71	0.01	0.07	0.06	549.05
TOTALS (tons/year, unmitigated)	0.49	1.69	5.71	0.01	0.07	0.06	549.05

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General heavy industry		6.75	acres	38.85	262.24	2,434.88
					262.24	2,434.88

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	25.0	2.0	97.6	0.4
Light Truck < 3750 lbs	30.0	3.7	90.8	5.5
Light Truck 3751-5750 lbs	15.0	0.9	98.6	0.5
Med Truck 5751-8500 lbs	10.0	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	5.0	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	5.0	0.0	50.0	50.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	5.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	5.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	77.1	22.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General heavy industry				90.0	5.0	5.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: B:\Project\SDGE\urbemis_update\Revised Urbemis 9-09\9-21-09 SDGE 138Kv transmit.urb924

Project Name: SDGE 138 kV line

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	26.18	237.08	177.77	0.18	160.02	9.22	162.61	33.42	8.45	35.80	41,339.35
2011 TOTALS (lbs/day mitigated)	26.18	237.08	177.77	0.18	65.37	9.22	67.96	13.65	8.45	16.03	41,339.35

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)							

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.67	8.40	30.88	0.03	0.41	0.31	3,102.31

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.67	8.40	30.88	0.03	0.41	0.31	3,102.31

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 2/1/2011-2/28/2011 Active Days: 20	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	160.00	0.00	160.00	33.41	0.00	33.41	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Time Slice 3/1/2011-4/29/2011 Active Days: 44	7.24	66.71	29.15	0.00	160.02	2.59	162.61	33.42	2.38	35.80	8,917.16
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	160.00	0.00	160.00	33.41	0.00	33.41	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 5/2/2011-5/31/2011 Active Days: 22	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48

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Time Slice 6/1/2011-6/30/2011 Active Days: 22	<u>26.18</u>	<u>237.08</u>	<u>177.77</u>	<u>0.18</u>	0.79	<u>9.22</u>	10.01	0.27	<u>8.45</u>	8.73	<u>41,339.35</u>
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 7/1/2011-8/31/2011 Active Days: 44	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Time Slice 10/3/2011-12/30/2011 Active Days: 65	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 10/01/2011-12/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50

Phase Assumptions

Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road

Total Acres Disturbed: 38.85

Maximum Daily Acreage Disturbed: 8

Fugitive Dust Level of Detail: Default

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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 5 hours per day
- 1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 3 hours per day
- 1 Plate Compactors (8 hp) operating at a 0.43 load factor for 5 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 5 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 5 hours per day

Phase: Trenching 3/1/2011 - 6/30/2011 - Pole foundation installation

Off-Road Equipment:

- 2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 5 hours per day
- 4 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

Phase: Building Construction 6/1/2011 - 8/31/2011 - Pole installation

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day
- 3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day
- 15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Phase: Building Construction 10/1/2011 - 12/31/2011 - Conductor stringing and sagging

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day

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3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day

15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day

2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 2/1/2011-2/28/2011 Active Days: 20	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	65.35	0.00	65.35	13.65	0.00	13.65	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Time Slice 3/1/2011-4/29/2011 Active Days: 44	7.24	66.71	29.15	0.00	<u>65.37</u>	2.59	<u>67.96</u>	<u>13.65</u>	2.38	<u>16.03</u>	8,917.16
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	65.35	0.00	65.35	13.65	0.00	13.65	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48

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Time Slice 5/2/2011-5/31/2011 Active Days: 22	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 6/1/2011-6/30/2011 Active Days: 22	26.18	237.08	177.77	0.18	0.79	9.22	10.01	0.27	8.45	8.73	41,339.35
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 7/1/2011-8/31/2011 Active Days: 44	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Time Slice 10/3/2011-12/30/2011 Active Days: 65	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 10/01/2011-12/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50

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Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas							
Hearth							
Landscape							
Consumer Products							
Architectural Coatings							
TOTALS (lbs/day, unmitigated)							

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
General heavy industry	2.67	8.40	30.88	0.03	0.41	0.31	3,102.31
TOTALS (lbs/day, unmitigated)	2.67	8.40	30.88	0.03	0.41	0.31	3,102.31

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Temperature (F): 85 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General heavy industry		6.75	acres	38.85	262.24	2,434.88
					262.24	2,434.88

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	25.0	2.0	97.6	0.4
Light Truck < 3750 lbs	30.0	3.7	90.8	5.5
Light Truck 3751-5750 lbs	15.0	0.9	98.6	0.5
Med Truck 5751-8500 lbs	10.0	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	5.0	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	5.0	0.0	50.0	50.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	5.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	5.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	77.1	22.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General heavy industry				90.0	5.0	5.0

Operational Changes to Defaults

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: B:\Project\SDGE\urbemis_update\Revised Urbemis 9-09\9-21-09 SDGE 138Kv transmit.urb924

Project Name: SDGE 138 kV line

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2011 TOTALS (lbs/day unmitigated)	26.18	237.08	177.77	0.18	160.02	9.22	162.61	33.42	8.45	35.80	41,339.35
2011 TOTALS (lbs/day mitigated)	26.18	237.08	177.77	0.18	65.37	9.22	67.96	13.65	8.45	16.03	41,339.35

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)							

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.70	11.02	32.15	0.03	0.41	0.31	2,820.89

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
TOTALS (lbs/day, unmitigated)	2.70	11.02	32.15	0.03	0.41	0.31	2,820.89

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Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 2/1/2011-2/28/2011 Active Days: 20	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	160.00	0.00	160.00	33.41	0.00	33.41	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Time Slice 3/1/2011-4/29/2011 Active Days: 44	7.24	66.71	29.15	0.00	160.02	2.59	162.61	33.42	2.38	35.80	8,917.16
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	160.01	1.00	161.01	33.42	0.92	34.34	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	160.00	0.00	160.00	33.41	0.00	33.41	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 5/2/2011-5/31/2011 Active Days: 22	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48

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Time Slice 6/1/2011-6/30/2011 Active Days: 22	<u>26.18</u>	<u>237.08</u>	<u>177.77</u>	<u>0.18</u>	0.79	<u>9.22</u>	10.01	0.27	<u>8.45</u>	8.73	<u>41,339.35</u>
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 7/1/2011-8/31/2011 Active Days: 44	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Time Slice 10/3/2011-12/30/2011 Active Days: 65	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 10/01/2011-12/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50

Phase Assumptions

Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road

Total Acres Disturbed: 38.85

Maximum Daily Acreage Disturbed: 8

Fugitive Dust Level of Detail: Default

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20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 5 hours per day
- 1 Other Material Handling Equipment (191 hp) operating at a 0.59 load factor for 3 hours per day
- 1 Plate Compactors (8 hp) operating at a 0.43 load factor for 5 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 5 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 5 hours per day

Phase: Trenching 3/1/2011 - 6/30/2011 - Pole foundation installation

Off-Road Equipment:

- 2 Bore/Drill Rigs (291 hp) operating at a 0.75 load factor for 5 hours per day
- 4 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4 hours per day
- 2 Other Equipment (190 hp) operating at a 0.62 load factor for 4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

Phase: Building Construction 6/1/2011 - 8/31/2011 - Pole installation

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day
- 3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day
- 15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day
- 2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Phase: Building Construction 10/1/2011 - 12/31/2011 - Conductor stringing and sagging

Off-Road Equipment:

- 3 Aerial Lifts (60 hp) operating at a 0.46 load factor for 5 hours per day
- 4 Air Compressors (106 hp) operating at a 0.48 load factor for 4 hours per day

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3 Cranes (399 hp) operating at a 0.43 load factor for 4.7 hours per day

15 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 4.4 hours per day

2 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 4 hours per day

1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 5 hours per day

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 2/1/2011-2/28/2011 Active Days: 20	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	65.35	0.00	65.35	13.65	0.00	13.65	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Time Slice 3/1/2011-4/29/2011 Active Days: 44	7.24	66.71	29.15	0.00	<u>65.37</u>	2.59	<u>67.96</u>	<u>13.65</u>	2.38	<u>16.03</u>	8,917.16
Mass Grading 02/01/2011-04/30/2011	2.50	20.88	11.66	0.00	65.35	1.00	66.35	13.65	0.92	14.57	2,138.64
Mass Grading Dust	0.00	0.00	0.00	0.00	65.35	0.00	65.35	13.65	0.00	13.65	0.00
Mass Grading Off Road Diesel	2.45	20.80	10.13	0.00	0.00	0.99	0.99	0.00	0.92	0.92	1,985.35
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.05	0.08	1.53	0.00	0.01	0.00	0.01	0.00	0.00	0.01	153.29
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
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Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
Trenching Off Road Diesel	4.66	45.69	14.94	0.00	0.00	1.58	1.58	0.00	1.46	1.46	6,523.04
Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 6/1/2011-6/30/2011 Active Days: 22	<u>26.18</u>	<u>237.08</u>	<u>177.77</u>	<u>0.18</u>	0.79	<u>9.22</u>	10.01	0.27	<u>8.45</u>	8.73	<u>41,339.35</u>
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Trenching 03/01/2011-06/30/2011	4.74	45.83	17.49	0.00	0.01	1.59	1.60	0.00	1.46	1.47	6,778.52
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Trenching Worker Trips	0.08	0.14	2.55	0.00	0.01	0.01	0.02	0.00	0.01	0.01	255.48
Time Slice 7/1/2011-8/31/2011 Active Days: 44	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 06/01/2011-08/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50
Time Slice 10/3/2011-12/30/2011 Active Days: 65	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building 10/01/2011-12/31/2011	21.44	191.25	160.29	0.18	0.78	7.63	8.41	0.27	6.99	7.26	34,560.83
Building Off Road Diesel	14.65	129.30	45.74	0.00	0.00	5.20	5.20	0.00	4.79	4.79	15,725.40
Building Vendor Trips	4.47	58.03	42.09	0.11	0.42	2.24	2.66	0.14	2.05	2.19	11,571.93
Building Worker Trips	2.31	3.92	72.46	0.07	0.36	0.19	0.55	0.13	0.16	0.29	7,263.50

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Mass Grading 2/1/2011 - 4/30/2011 - Clear and grade for poles and access road

For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas							
Hearth							
Landscape							
Consumer Products							
Architectural Coatings							
TOTALS (lbs/day, unmitigated)							

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
General heavy industry	2.70	11.02	32.15	0.03	0.41	0.31	2,820.89
TOTALS (lbs/day, unmitigated)	2.70	11.02	32.15	0.03	0.41	0.31	2,820.89

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Temperature (F): 40 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
General heavy industry		6.75	acres	38.85	262.24	2,434.88
					262.24	2,434.88

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	25.0	2.0	97.6	0.4
Light Truck < 3750 lbs	30.0	3.7	90.8	5.5
Light Truck 3751-5750 lbs	15.0	0.9	98.6	0.5
Med Truck 5751-8500 lbs	10.0	1.1	98.9	0.0
Lite-Heavy Truck 8501-10,000 lbs	5.0	0.0	75.0	25.0
Lite-Heavy Truck 10,001-14,000 lbs	5.0	0.0	50.0	50.0

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Med-Heavy Truck 14,001-33,000 lbs	5.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	5.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	100.0
Motorcycle	0.0	77.1	22.9	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	10.0	80.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
General heavy industry				90.0	5.0	5.0

Operational Changes to Defaults

Aircraft Emissions by Mode (Short Tons per Year) Baseline - Jacumba 2011

Type	Engine	ID	Euro. G...	Mode	CO2	CO	THC	NM...	VOC	TOG	NOx	SOx	PM-...	PM-...	Fuel Consu...
Bell 206 JetRanger	250B17B	#1	H1	Startup	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bell 206 JetRanger	250B17B	#1	H1	Taxi Out	4.347	0.148	0.030	0.035	0.035	0.035	0.003	0.002	N/A	N/A	1.378
Bell 206 JetRanger	250B17B	#1	H1	Takeoff	0.799	0.002	0.000	0.000	0.000	0.000	0.002	0.000	N/A	N/A	0.253
Bell 206 JetRanger	250B17B	#1	H1	Climb Out	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bell 206 JetRanger	250B17B	#1	H1	Approach	0.500	0.008	0.001	0.001	0.001	0.001	0.000	0.000	N/A	N/A	0.158
Bell 206 JetRanger	250B17B	#1	H1	Taxi In	7.900	0.270	0.056	0.064	0.064	0.064	0.005	0.003	N/A	N/A	2.504
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Startup	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Taxi Out	144.606	0.620	0.332	0.383	0.381	0.383	0.196	0.059	N/A	N/A	45.834
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Takeoff	12.060	0.008	0.000	0.001	0.001	0.001	0.032	0.005	N/A	N/A	3.822
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Climb Out	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Approach	13.433	0.025	0.008	0.009	0.009	0.009	0.026	0.006	N/A	N/A	4.258
Sikorsky CH-53E Super Stal...	T64-GE-416	#1	H2	Taxi In	239.508	1.032	0.552	0.638	0.635	0.638	0.324	0.098	N/A	N/A	75.914

ATTACHMENT C: PARCELS WITHIN 300 FEET

Attachment C: Parcels within 300 Feet

Name	Street Address	City	State	Zip Code	Contact Name	Assessor Parcel Number
Rosado Moises	1690 Tierra Del Sol Road	Boulevard	CA	91905		61012101
Carlos J & Clotilde Nava	404 E Mccabe Road	Heber	CA	92249		61209211
Bonnie C. Knudsen	P.O.Box 1465	Boulevard Ca	CA	91905		61212002
Stuart Family Trust 10-06-02	P.O.Box 1291	Boulevard	CA	91905		61212031
Jeff Rozendal	9640 Oak Grove Drive	Descanso	CA	91916		61212039
Angelica Perez	1603 Jewel Valley Road	Boulevard	CA	91905		61212006
Luke Gordon	3773 Cherry Creek North Drive	Denver	CO	80209		61212053
Kenneth & Wendy Venable	1588 Jewel Valley Road	Boulevard	CA	91905		65902022
Kenneth & Virginia Littelman	1518 Jewel Valley Road	Boulevard	CA	91905		65903002
Tecate Divide L L C	5 Lakeshore Drive	Averill Park	NY	12018		61209057
Earl J. Erickson	7560 University Avenue #C	La Mesa	CA	91941		61012006
John Jr & Josephine Villaro	207 Kilani Pl.	Wahiawa	HI	96786		61209210
Michael P. Troy	P.O.Box 1347	Boulevard	CA	91905		61209058
Edgar & Linda Morris	1592 Jewel Valley Road	Boulevard	CA	91905		65902024
James & Jeri Nevadomsky	1590 Jewel Valley Road	Boulevard	CA	91905		65902025
Joseph & Helen Shecora Trust	7947 San Carlos Drive	San Diego	CA	92119		65902014
Lansing Industries Inc Profit Sharing P	12770 High Bluff Drive #160	San Diego	CA	92130		61211017, 61212001, 61212014, 65903001, 65902005, 65908002
David Sempstrott Living Trust	6607 Broadway	San Diego	CA	92114		61212043
Howard Jones	1741 Orange Avenue	Ramona	CA	92065		61212010
Luke Gordon	2974 Adeline St	Berkeley	CA	94703		65903004
Mattar Family Trust Of 1990	4395 Alta Mira Drive	La Mesa	CA	91941		65903003
Domingo Lake Estates L L C	124 N Riverside Avenue	Rialto	CA	92376		65909005, 65909001, 65908004, 65909006, 65909007, 65909004
Charles Easley Living Trust	793 4th Avenue	Chula Vista	CA	91910		65902010
Allen Fisher	715 Wilbur Avenue	San Diego	CA	92109	C/O Fisher Robert W	65903006
Martin & Rosemary Cronk	771 Delaware Street	Imperial Beach	CA	91932		65903010
Louis & Asuncion Martin Revocable 2	5305 Roswell Street	San Diego	CA	92114		65910006
Head Family Trust	5668 Lamas Street	San Diego	CA	92122		65910015, 65910009
Romero Family Trust	9100 Single Oak Drive #91	Lakeside	CA	92040		65911019, 65911020, 65911021
Kathryn Flaniken	P.O.Box 276	Jacumba	CA	91934	C/O David L. Oney	65911018
Thomas & Kathleen Lindenmeyer	43027 Old Highway 80	Jacumba	CA	91934		65912017
Margaret Mccanna-Davalos	P.O.Box 353	Jacumba	CA	91934	C/O Donna Mccanna	65912012
William Recht Living Trust	294 Skyline Drive	Hamilton	MT	59840		65912052, 66003023

Attachment C: Parcels within 300 Feet

Name	Street Address	City	State	Zip Code	Contact Name	Assessor Parcel Number
390 Jacumba L L C	12770 High Bluff Drive #160	San Diego	CA	92130		65912051
Kenneth Hall	P.O.Box 1065	Brewster	WA	98812		66104015
M&W Developers Corp	1032 Broadway	El Cajon	CA	92021		66101003
Michael Fisher	4308 Azalea Drive	Raleigh	NC	27612	C/O Patrick Fisher	66103007
U S Financial L P	3770 Hancock Street #D	San Diego	CA	92110		66104104
Jacumba Holdings L L C	8191 E Kaiser Blvd.	Anaheim	CA	92808	C/O Specialty Restaurant Corp	66104105
Eugene & Mary Czubernat Family Tru	6144 Chrismark Avenue	San Diego	CA	92120		66108010
Port Everglades Restaurant Corp	8191 E Kaiser Blvd.	Anaheim	CA	92808		66105004
Jacumba Valley Ranch	2423 Camino Del Rio S #212	San Diego	CA	92108	C/O Karl Turecek	66101030, 66101002, 66002005, 66101027
The Nature Conservancy	201 Mission Street	San Francisco	CA	94105		66002003, 66001001
San Diego Gas & Electric Co	101 Ash Street	San Diego	CA	92101	C/O Sempra Energy	61209212, 61209213
Edward Shoop	40751 Old Highway 80	Boulevard	CA	91905	C/O Carol St. Germain	61209064
John Murphy	P.O.Box 193	Jacumba	CA	91934		61209045
Gloria Poore	923 Island Avenue	San Diego	CA	92101		65903012
Nicholas & Patricia Georggin	1324 Northview Drive	El Cajon	CA	92019		61012005
Ronald Israel	5066 67th Street	San Diego	CA	92115	C/O Donald Israel	61212033
Sandra Cooper	P.O.Box 4283	Yuma	AZ	85366		61212028
John & Karen Garrido	2408 Manzana Way	San Diego	CA	92139		61212050, 61212051
Chester Shaw	P.O.Box 1274	Boulevard	CA	91905		61212026
David Sempsrott Living Trust	6607 Broadway	San Diego	CA	92114		61209214
San Diego & Arizona Railway	4695 Nebo Driveive	La Mesa	CA	91941-5259		65908009, 65909008, 65910007, 66002002

ATTACHMENT D: STAKEHOLDER LIST

Attachment D: Stakeholder List

Name	Street Address	City	State	Zip Code	Contact Name	Assessor Parcel Number (not applicable to stakeholders)
Rosado Moises	1690 Tierra Del Sol Road	Boulevard	CA	91905		
Carlos J & Clotilde Nava	404 E Mccabe Road	Heber	CA	92249		
Bonnie C. Knudsen	P.O.Box 1465	Boulevard Ca	CA	91905		
Stuart Family Trust 10-06-02	P.O.Box 1291	Boulevard	CA	91905		
Jeff Rozendal	9640 Oak Grove Drive	Descanso	CA	91916		
Angelica Perez	1603 Jewel Valley Road	Boulevard	CA	91905		
Luke Gordon	3773 Cherry Creek North Drive	Denver	CO	80209		
Kenneth & Wendy Venable	1588 Jewel Valley Road	Boulevard	CA	91905		
Kenneth & Virginia Littelman	1518 Jewel Valley Road	Boulevard	CA	91905		
Tecate Divide L L C	5 Lakeshore Drive	Averill Park	NY	12018		
Earl J. Erickson	7560 University Avenue #C	La Mesa	CA	91941		
John Jr & Josephine Villaro	207 Kilani Pl.	Wahiawa	HI	96786		
Michael P. Troy	P.O.Box 1347	Boulevard	CA	91905		
Edgar & Linda Morris	1592 Jewel Valley Road	Boulevard	CA	91905		
James & Jeri Nevadomsky	1590 Jewel Valley Road	Boulevard	CA	91905		
Joseph & Helen Shecora Trust	7947 San Carlos Drive	San Diego	CA	92119		
Lansing Industries Inc Profit Sharing	12770 High Bluff Drive #160	San Diego	CA	92130		
David Sempstrott Living Trust	6607 Broadway	San Diego	CA	92114		
Howard Jones	1741 Orange Avenue	Ramona	CA	92065		
Luke Gordon	2974 Adeline St	Berkeley	CA	94703		
Mattar Family Trust Of 1990	4395 Alta Mira Drive	La Mesa	CA	91941		
Domingo Lake Estates L L C	124 N Riverside Avenue	Rialto	CA	92376		
Charles Easley Living Trust	793 4th Avenue	Chula Vista	CA	91910		
Allen Fisher	715 Wilbur Avenue	San Diego	CA	92109	C/O Fisher Robert W	
Martin & Rosemary Cronk	771 Delaware Street	Imperial Beach	CA	91932		
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Romero Family Trust	9100 Single Oak Drive #91	Lakeside	CA	92040		
Kathryn Flaniken	P.O.Box 276	Jacumba	CA	91934	C/O David L. Oney	
Thomas & Kathleen Lindenmeyer	43027 Old Highway 80	Jacumba	CA	91934		
Margaret Mccanna-Davalos	P.O.Box 353	Jacumba	CA	91934	C/O Donna Mccanna	
William Recht Living Trust	294 Skyline Drive	Hamilton	MT	59840		
390 Jacumba L L C	12770 High Bluff Drive #160	San Diego	CA	92130		
Kenneth Hall	P.O.Box 1065	Brewster	WA	98812		
M&W Developers Corp	1032 Broadway	El Cajon	CA	92021		
Michael Fisher	4308 Azalea Drive	Raleigh	NC	27612	C/O Patrick Fisher	
U S Financial L P	3770 Hancock Street #D	San Diego	CA	92110		
Jacumba Holdings L L C	8191 E Kaiser Blvd.	Anaheim	CA	92808	C/O Specialty Restaurant Corp	

Attachment D: Stakeholder List

Name	Street Address	City	State	Zip Code	Contact Name	Assessor Parcel Number (not applicable to stakeholders)
Eugene & Mary Czubernat Family Tru	6144 Chrismark Avenue	San Diego	CA	92120		
Port Everglades Restaurant Corp	8191 E Kaiser Blvd.	Anaheim	CA	92808		
Jacumba Valley Ranch	2423 Camino Del Rio S #212	San Diego	CA	92108	C/O Karl Turecek	
The Nature Conservancy	201 Mission Street	San Francisco	CA	94105		
San Diego Gas & Electric Co	101 Ash Street	San Diego	CA	92101	C/O Sempra Energy	
Edward Shoop	40751 Old Highway 80	Boulevard	CA	91905	C/O Carol St. Germain	
John Murphy	P.O.Box 193	Jacumba	CA	91934		
Gloria Poore	923 Island Avenue	San Diego	CA	92101		
Nicholas & Patricia Georggin	1324 Northview Drive	El Cajon	CA	92019		
The Nature Conservancy	201 Mission Street	San Francisco	CA	94105		
Ronald Israel	5066 67th Street	San Diego	CA	92115	C/O Donald Israel	
Sandra Cooper	P.O.Box 4283	Yuma	AZ	85366		
John & Karen Garrido	2408 Manzana Way	San Diego	CA	92139		
Chester Shaw	P.O.Box 1274	Boulevard	CA	91905		
David Sempstrott Living Trust	6607 Broadway	San Diego	CA	92114		
San Diego & Arizona Railway	4695 Nebo Driveive	La Mesa	CA	91941-5259		

**ATTACHMENT E: REVISED FIGURE 4.10-2: AMBIENT SOUND LEVELS AND WIND SPEEDS –
DOWNTOWN JACUMBA**

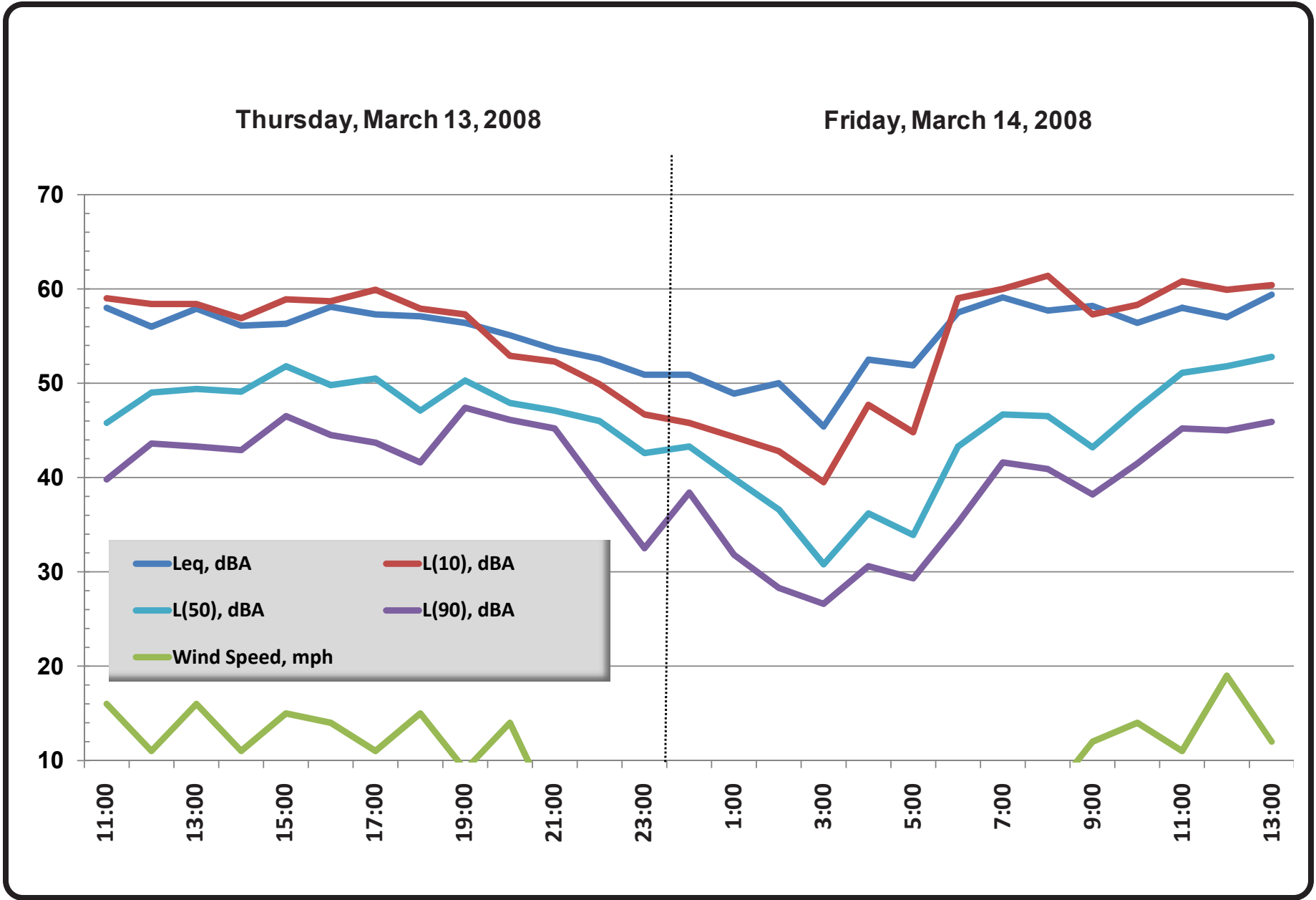


Figure 4.10-2: Ambient Sound Levels and Wind Speeds – Downtown Jacumba
 (Revised October 2009)

**ATTACHMENT F: REVISED FIGURE 3-21: WHITE STAR COMMUNICATION FACILITY SITE
PLAN**

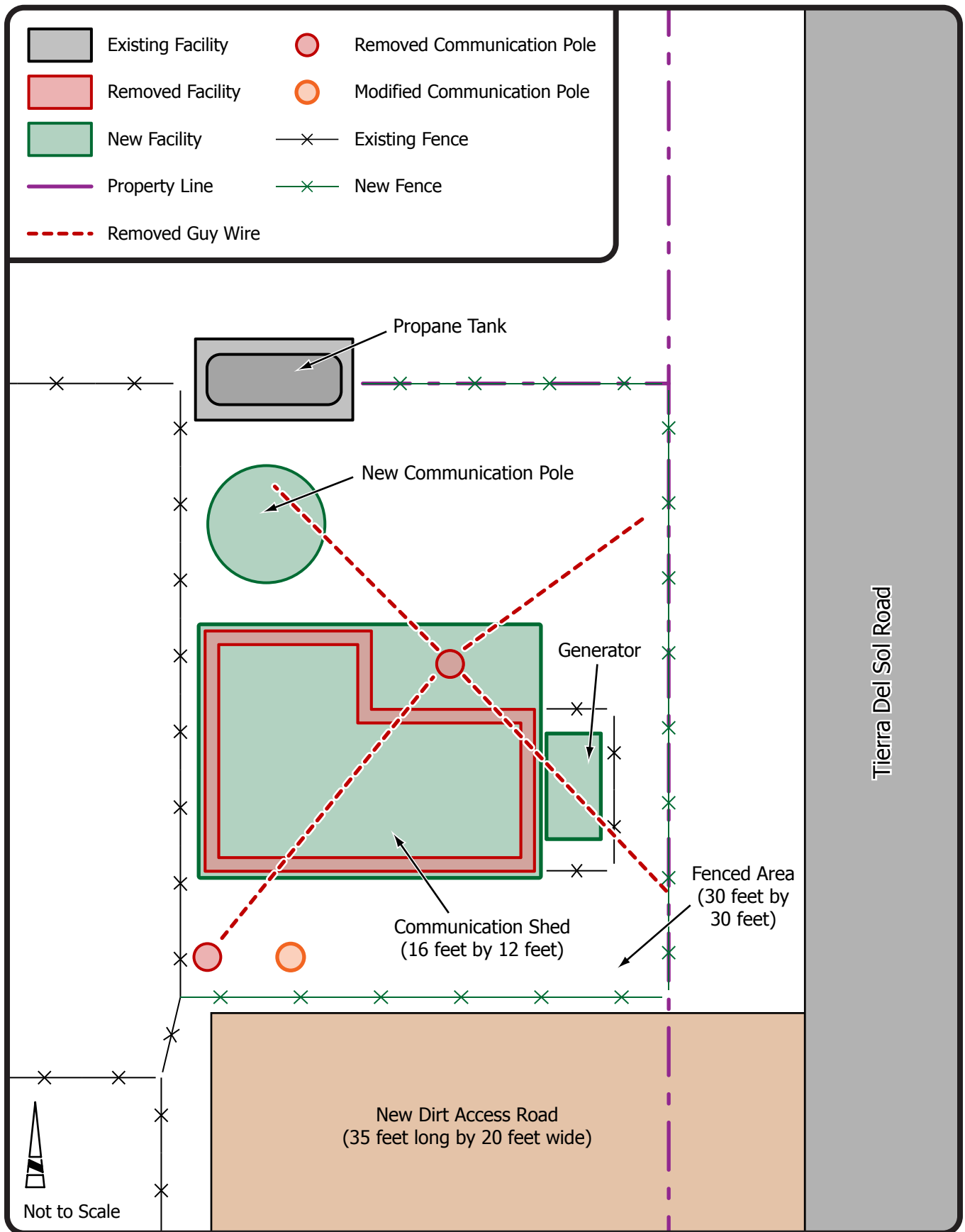


Figure 3-21: White Star Communication Facility Site Plan

(Revised October 2009)

