



Mary Turley
Project Manager - Construction
Services, Major Projects
8315 Century Park Court, CP21C
San Diego, CA 92123
(T) 858-654-1749
(F) 858-637-3770

August 24, 2010

Mr. Jensen Uchida
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Dear Mr. Uchida:

Thank you for your comments on the Proponent's Environmental Assessment (PEA) for the South Bay Substation Relocation Project. San Diego Gas & Electric Company (SDG&E) is providing the following supplemental responses to the questions you posed in your July 16, 2010 Completeness Review letter. The original text for each item of the completeness review is included in bold, followed by SDG&E's response in plain text.

ADMINISTRATIVE

- 1. Please provide a statement regarding any areas of controversy or whether any opposition to the proposed South Bay Substation Relocation Project (Proposed Project) has been expressed.**

8/16/10 Response: To date, SDG&E has not received any opposition to the Proposed Project and is unaware of any areas of controversy. It is noted that the City of Chula Vista believes that consideration be given to undergrounding the existing 69kV transmission lines as part of this proposed project. SDG&E does not believe the cost of undergrounding should be part of this proposed project and has informed the City of Chula Vista. A few letters of support were included in Attachment 1-A: Letters of Support to the PEA. An additional letter from the City of Chula Vista, dated May 11, 2010, along with SDG&E's response, dated June 6, 2010 is provided in Attachment A: Correspondence to this letter.

8/24/10 Supplemental Response: Please find the attached supplemental letter, which was sent by SDG&E to the City of Chula Vista in regards the undergrounding the existing 69kV transmission lines, dated August 18, 2010.



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Section 4.1 Aesthetics

- 1. Visual Simulation: The PEA provides a visual simulation of the completed demolition of the South Bay Substation site from the L Street/Bay Boulevard intersection looking west; however, the main project component (Bay Boulevard Substation) cannot be**

seen in this visual simulation. Please provide a new visual simulation of the Bay Boulevard Substation from the L Street/Bay Boulevard intersection looking south.

8/16/10 Response: SDG&E will respond to this question on or before August 24, 2010.

8/24/10 Response: Please find the attached visual simulation responsive to question 1 of Section 4.1.

- 2. Figure 4.1.3, Visual Simulation: Please provide a visual simulation that includes proposed landscaping per the conceptual landscape plan, which is provided in Figure 4.1.6.**

Response: A visual simulation that includes proposed landscaping per the Preliminary Landscape Concept has been prepared and included in Attachment B: Visual Simulation to this letter.

- 3. Section 4.1.3 Impacts: Please identify whether any lighting will be required on the top of proposed structures for Federal Aviation Administration purposes.**

Response: At this time, it is expected that only one pole would require noticing to the Federal Aviation Administration (FAA). It is unknown at this time if any lighting would be required on this one pole. Once the FAA receives the noticing and makes the determination, SDG&E will notify the CPUC as to the outcome of this review.

Section 4.10 Noise

- 1. Section 4.10.2, Existing Noise Measurements: Please provide the ambient noise level at the closest residence(s) and noise sensitive receptors (i.e., recreational users within Marina View Park).**

In order to characterize the ambient noise level within the Proposed Project area and Marina View Park, 25-hour noise monitoring was conducted from August 3, 2010 through August 4, 2010 at three locations. One Larson Davis 820 (ANSI Type-1) integrating sound level meter and two Rion NL-31 (ANSI Type-1) integrating sound level meters were used to collect the data. The sound level meters were field calibrated before and after the measurements, and have annual calibration records traceable to the National Institute of Standards and Technology. The microphones were located five feet above the ground on tripods, wind screens were placed on the microphones, and weather data was logged at the start time of the measurements.

The results of the ambient noise monitoring are presented in the following table and in Attachment A: Noise Measurement Addendum.

Site Number	Site Description	Dominant Noise Sources	Monitoring Results (dBA)		
			CNEL 25-Hour	Daytime L_{eq}	Nighttime L_{eq}
1	Former LNG Site	Local traffic on Bay Boulevard, Interstate 5 (I-5) freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls	56	52	48
2	South Bay Substation	Transformer hum and corona from the South Bay Substation, operational noise from the South Bay Power Plant, local traffic on Bay Boulevard, I-5 freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls	59	55	51
3	Marina View Park	Local traffic on Bay Boulevard, I-5 freeway traffic, occasional small aircraft flying overhead, pedestrians in the park, and many bird calls	60	56	52

The closest residential receptors to the Proposed Project are located to the east of and directly adjacent to I-5 and active railroad tracks. As a result, the dominant local noise sources for these receptors are vehicular and rail traffic. The City of Chula Vista's General Plan Update characterizes the ambient noise at these locations as being between 75 and 70 dBA.

2. Existing Noise Measurements, Table 4.10-3: Please identify the primary noise source(s) that occurred while the noise measurements were completed.

Primary noise sources were not recorded during the original noise monitoring included in Attachment 4.10-B: Noise Study for the South Bay Relocated 230/69/12 kV Substation. Due to the short duration of the previous noise monitoring effort and the lack of data surrounding the primary noise sources in the vicinity, the noise monitoring was rerun, as described previously in the response to question 1. The primary noise sources that were observed during the August 2010 noise monitoring activities have been presented in the table accompanying the response to question 1.

- 3. Existing Noise Measurements, Table 4.10-3: Measurement duration of only 10 minutes does not appear to be an accurate reflection of the existing ambient noise conditions in the project area because it does not capture the normal 24-hour variation in noise levels for the area. Please provide noise measurement data that more accurately reflect the daily variation in the ambient noise level in order to determine the change in the ambient noise that would result with project implementation.**

As described previously in the response to question 1, 25-hour noise monitoring was performed in August 2010 in the same locations as described in Table 4.10-3: Noise Monitoring Results. The results from the most recent monitoring effort have been presented in the table accompanying the response to question 1. More detailed data has been included in Attachment A: Noise Measurement Addendum.

- 4. Existing Noise Measurements, Table 4.10-4: Marina View Park is located immediately adjacent to the right of way. Please address potential noise impacts from construction-related activities to recreational users located at Marina View Park.**

Construction activities associated with the proposed 69 kilovolt (kV) transmission line relocation would include pole removal, installation, and replacement, as well as conductor pulling and tensioning. Based on the equipment identified previously in Section 4.10 Noise of the Proponent's Environmental Assessment (PEA), a 75 dBA noise contour would extend approximately 265 feet from each pole replacement site. The closest residential receptors are located more than 265 feet from the Proposed Project area; therefore, no residential impacts would occur. Pole 88 is located approximately 245 feet from the Marina View Park and is the closest pole to this sensitive receptor. Approximately five poles are located within 265 feet of the Pima Medical Institute, which is considered a sensitive receptor as they conduct training seminars at this location. Due to the proximity of these poles to Marina View Park and Pima Medical Institute, these receptors may be temporarily exposed to noise in excess of 75 dBA under a worst-case scenario.¹ Because the equipment used to remove and install the new poles would not typically operate concurrently and the construction activities at these poles are anticipated to last approximately 10 days, impacts would be less than significant.

- 5. Section 4.10.3, Impacts: Please quantify the construction noise level at the adjacent properties and closest noise sensitive receptors (i.e., Marina View Park and San Diego National Wildlife Refuge) and evaluate the noise impact at these locations. A construction noise impact can be significant even though the City of Chula Vista may not have a quantified threshold limit for construction noise.**

The San Diego Wildlife Sanctuary is located approximately 250 feet west of the proposed Bay Boulevard Substation. During peak construction periods, such as is expected in January 2012, the noise levels in the sanctuary may temporarily exceed 80 dBA. As described previously, the noise calculations presented assume a worst-case scenario where all construction equipment on site is operating at the same time.

Suitable habitat for wildlife surrounds the Proposed Project to the west. As a result, it is likely that wildlife would temporarily relocate during peak construction activities. Because

¹ A worst-case scenario assumes that all Proposed Project equipment is operating at the same time in the same location.

the wildlife in the area has the ability to relocate and it is unlikely that all equipment would be operating concurrently, impacts to wildlife are expected to be less than significant.

Marina View Park and Pima Medical Institute are located adjacent to the proposed 69 kV transmission line relocation construction activities and are the closest sensitive receptors to the Proposed Project. As described previously, any receptors located within 265 feet of construction work at these transmission line poles may be temporarily exposed to noise in excess of 75 dBA. Due to the short duration of the noise exposure at the Pima Medical Institute, impacts would be less than significant. In order to avoid impacts to recreational users at the Marina View Park, SDG&E would implement a new applicant-proposed measure (APM), APM-NOI-01, which is described as follows:

- APM-NOI-01: SDG&E would post notices within Marina View Park at least one week prior to construction activities informing potential recreational users of the scheduled construction activities.

Due to the temporary and short-term nature of the construction activities near the park and with the addition of the APM, which would require noticing potential users so that they can avoid exposure to the noise, impacts would be less than significant.

6. Section 4.10.3, Impacts: Please indicate whether the operational noise of the substation will comply with the City's 45 dB Leq(h) noise level limit at the closest sensitive receptors.

As demonstrated by Figure 4.10-3: Bay Boulevard Substation Operational Noise Contours in Section 4.10 Noise of the PEA, the operational noise from the substation was modeled to be below 45 dB at the eastern extent of SDG&E's existing transmission line easement. The closest receptors are several hundred feet east of the easement boundary; thus, noise at the receptors would be below the City's 45 dB noise level limit and in compliance.

7. Section 4.10.3, Impacts: Please calculate the Corona transmission line noise level assuming Corona noise attenuates as a linear source rather than a point source.

As described in Chapter 3 – Project Description, construction of the Proposed Project would reduce the total length of overhead transmission lines within SDG&E's existing easement. The largest reduction would occur when approximately 3,800 feet of the existing TL13815 line would be converted from an overhead to underground configuration. The portions of TL641 and TL644 that are located to the closest sensitive receptors—Marina View Park and the Pima Medical Institute, respectively—would only undergo pole replacement as part of the Proposed Project. Because the pole locations and line voltages would not be affected, no change in corona noise from these portions of line would result. As a result, construction of the Proposed Project would result in a lower corona noise level than existing conditions in and around the Proposed Project site. Nevertheless, in response to the question, SDG&E calculated the corona transmission line noise level assuming corona noise attenuates as a linear source. This calculation resulted in the corona noise during poor weather conditions from all new and relocated transmission lines being 48 dBA at the sensitive receptor identified in the Proponent's Environmental Assessment, which is located approximately 800 feet east of SDG&E's transmission easement.

8. Section 4.10.3, Impacts: Please evaluate the potential impacts associated with the use of a helicopter for construction in relation to commercial uses, recreational users, and sensitive wildlife species.

Helicopters may be used during construction of the Proposed Project for conductor stringing. This process involves using a helicopter to pull the sock line through hardware attached to each transmission pole. This activity is anticipated to require approximately 10 minutes of helicopter activity at each pole. The noise level generated from operating a helicopter is approximately 95 dBA at a distance of 200 feet. Noise-sensitive receptors located within approximately 235 feet of these activities may experience temporary noise levels in excess of a 75 dBA average between 7 a.m. and 7 p.m.² The Pima Medical Institute is the only sensitive receptor located within 235 feet of the conductor stringing activities. Helicopter work is anticipated to require up to 24 hours of activity spread across many days. Due to the short-term nature of the required helicopter activities, impacts would be less than significant.

9. Section 4.10.3, Impacts: Please provide the limits of the 60 Community Noise Equivalent Level (CNEL) contour that would result during construction. The 60 CNEL contour location is needed to evaluate whether sensitive wildlife would be impacted during construction.

SDG&E will provide a response to this question on or before August 27, 2010.

We greatly appreciate the CPUC's efforts to review the PEA and ensure its completeness. Should you have any questions, please do not hesitate to contact me at (858) 654-1749 or Chris Terzich at (858) 637-3713.

Sincerely,

Mary Turley
Project Manager

² The impact distance (d) for helicopter was determined using the following: $75 \text{ dBA} = 95 \text{ dBA} - 20 * \text{Log}(d/200) + 10 * \text{Log}(10 \text{ min}/(12\text{hrs} * 60 \text{ min/hr}))$



David L. Geier
Vice President
Electric Transmission & Distribution

San Diego Gas & Electric
8330 Century Park Court
San Diego, CA 92123-1530

Tel: 858.650.6131
Fax: 858.650.6106
dgeier@SempraUtilities.com

August 18, 2010

Honorable Mayor Cheryl Cox
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 91910

Dear Mayor Cox:

This is a follow up to your prior letter dated May 11, 2010, regarding the City's desire for SDG&E to underground the existing 69kV transmission lines located along the Chula Vista bayfront, from J Street South to the proposed substation location, as part of the South Bay Substation Relocation Project (Project). While we share your long term vision for the redevelopment and beautification of the City's bayfront, during the general discussion a few obstacles became clear, which led us to our current thinking on why it is not acceptable to include the undergrounding of the transmission lines as part of the proposed Project.

Under Federal Energy Regulatory Commission and California Public Utilities Commission (CPUC) requirements, only those costs reasonable and necessary for a given project can be recovered from SDG&E ratepayers. Similarly, the California Environmental Quality Act (CEQA) places certain limitations on how a project may be reasonably defined for purposes of licensing pursuant to the CPUC's discretionary approval. The undergrounding of the existing overhead 69kV transmission lines is not required for relocating the existing substation. Pursuant to SDG&E's electric tariffs (Rule 20) any such undergrounding of the utility's existing facilities, at the request of, or to meet the convenience of the City, is borne by the City or other parties directly benefitting.

On February 11, 2010 the California Independent System Operator (CAISO) approved the South Bay Substation Relocation Project. This was the result of a three year study by the CAISO to determine the best alternative for SDG&E's and California's transmission infrastructure after the South Bay Power Plant is retired. The CAISO approval was based on a project scope that included the transfer of all 69kV lines from the existing substation to the new substation. Undergrounding of these 69kV lines was not part of the project that was approved. The CAISO study which resulted in approval of the project included an economic analysis based on the estimated project cost of \$129.2 million. If undergrounding of the 69kV transmission lines had been included the total South Bay Substation Relocation Project cost would have approached or exceeded \$160 million and in all likelihood would not have gained approval by the CAISO.

On June 16, 2010, SDG&E filed for a Permit to Construct (PTC) with the CPUC to obtain approval for the South Bay Substation Relocation Project. SDG&E's filing included the Proponents Environmental Assessment with a project description containing the exact same elements as approved by the CAISO. Attempting to add an undergrounding option of the 69kV transmission lines as an alternative would likely add a six month to one year delay to the PTC approval process to allow for the revision of the environmental documents and may require re-starting the CPUC approval process. It is our opinion that inclusion of the 69kV undergrounding in the PTC application would in all likelihood result in CPUC denying all or part of the proposed project.

Since the South Bay Relocation Project is a critical step in the redevelopment of the bayfront we believe that it is important to avoid raising additional issues which could delay or jeopardize a timely decision by the CPUC.

SDG&E remains committed to work cooperatively with the City to underground the 69kV transmission lines, at some future time, throughout the bayfront once the City or any other parties can identify the funding that can be utilized for this specific purpose. We look forward to continued discussions with the City regarding the South Bay Substation Relocation Project and other future opportunities to advance bayfront redevelopment.

Sincerely,



dlg/

cc:

Councilmember Pamela Bensoussan
Councilmember Steve Casteneda
Councilmember John McCann
Councilmember Rudy Ramirez
Scott Tulloch, City of Chula Vista
E. Mitch Mitchell, SDGE
Joan LeSage, SDGE
Mary Turley, SDGE

15 September, 2010

Insignia Environmental
540 Bryant Street, Suite 200
Palo Alto, CA 94301
Attn: Robert Curley

Subject: South Bay Substation Relocation Project – Noise Measurement Addendum

Dear Mr. Curley:

Existing Noise Measurements

The sound levels in most communities fluctuate, depending on the activity of nearby and distant noise sources, time of the day, or season of the year. Within an hour, the sound level can fluctuate between the lowest level (L_{\min}) and the highest level (L_{\max}).

25-hour ambient sound measurements were taken at three locations to characterize the existing environment. These sound measurements were recorded in dBA and included the following:

- L_{eq} is an average of the time-varying sound energy for a specified time period. The L_{eq} was measured and reported for each hour of measurement and for the daytime period when construction is expected to occur.
- $L_{(10)}$ is the level that is exceeded 10 percent of the time period.
- $L_{(50)}$ is the level that is exceeded 50 percent of the time period.
- $L_{(90)}$ is the level that is exceeded 90 percent of the time period and is often utilized as a descriptor of the background noise.
- L_{dn} , Day-Night Sound Level, is an average of the time-varying sound energy for one 24-hour period, with a 10 dB addition to the sound energy for the time period of 22:00 to 07:00 hours.
- CNEL, Community Noise Equivalent Level, is the 24 hour A-weighted average sound level obtained after the addition of 5 dB to sound levels occurring between 19:00 and 22:00 hours and the addition of 10 dB to sound levels occurring between 22:00 and 07:00 hours.

25-hour noise monitoring was conducted at three locations on August 3, 2010 through August 4, 2010 using one Larson Davis 820 (ANSI Type-1) integrating sound level meter, and two Rion NL-31 (ANSI Type-1) integrating sound level meters. The sound level meters were field calibrated before and after the measurements and have annual calibration records traceable to the NIST (National Institute of Standards and Technology). The microphones were located five feet above the ground on tripods, wind screens were placed on the microphones, and weather data was logged at the start time of the measurements. The following bullets explain the measurement locations:

- **Site 1** - Located on the north-central portion of the former LNG site, approximately 60 feet south of the power plant's fence line and 690 feet west of Bay Boulevard's centerline. The dominant noise sources at this measurement site were: local traffic on Bay Boulevard, Interstate 5 (I-5) freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls.
- **Site 2** - Located adjacent to the northwestern fence of the existing South Bay Substation. The dominant noise sources at this measurement site were: transformer hum and corona from the South Bay Substation, operational noise from the power generating facility, local traffic on Bay Boulevard, I-5 freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls.
- **Site 3** - Located near the southeastern corner of Marina View Park below the existing 69 kV overhead transmission lines, 126 feet south of Marina Parkway's centerline, and 205 feet west of Bay Boulevard's centerline. The dominant noise sources at this measurement site were: local traffic on Bay Boulevard, I-5 freeway traffic, occasional small aircraft flying overhead, pedestrians in the park, and many bird calls.

These measurement sites were selected because they were acoustically representative of typical existing noise exposure within the Proposed Project area. The locations of the measurement sites are depicted on Figure 4.10-1: Noise Measurement Location Map in Section 4.10 Noise of the Proponent's Environmental Assessment.

Table 4.10-3: Noise Measurement Results

Site No.	Site Description	Monitoring Results ^{db(A)}		
		CNEL 25-Hour	L _{eq} – Day	L _{eq} – Night
1	North-central portion of the former LNG site. The dominant noise sources at this site were: local traffic on Bay Boulevard, I-5 freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls.	56	52	48
2	Northwestern fence of the South Bay Substation. The dominant noise sources at this site were: transformer hum and corona from the substation, operational noise from the power generating facility, local traffic on Bay Boulevard, I-5 freeway traffic (distant), occasional small aircraft flying overhead, and many bird calls.	59	55	51
3	Southeastern corner of Marina View Park. The dominant noise sources at this site were: local traffic on Bay Boulevard, I-5 freeway traffic, occasional small aircraft flying overhead, pedestrians in the park, and many bird calls.	60	56	52

The results of the field measurements are summarized in Table 4.10-3: Noise Measurement Results. The detailed hourly results of the noise measurements are in Appendix A – Noise Monitoring Results. The hourly weather data was download from www.weather.com and is provided in Appendix B – Hourly Weather Data.

Sincerely yours,

ACENTECH INCORPORATED



Ramon E. Nugent, P.E. (TX)
Director

Appendix A – Noise Monitoring Results

Hourly Noise Levels, Leq(h)

Location: Meter 1006 - Site 1 - Former LNG Site

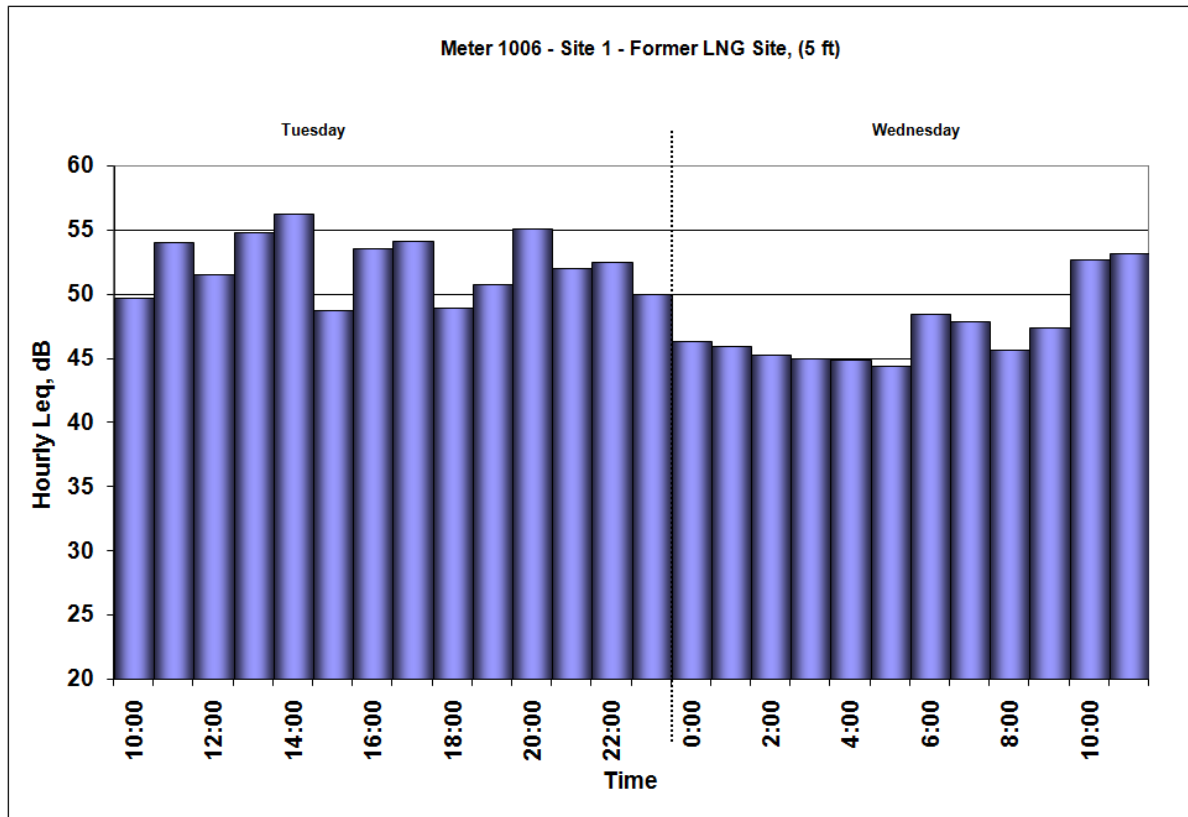
CNEL: 56

Position: (5 ft)

Ldn: 55

Sources: Local Traffic, Interstate 5, Birds, Small Aircraft (Jets and Planes)

Date: 8/3/2010 to 8/4/2010



Date:		8/3/2010	8/4/2010
Day:		Tue	Wed
TIME		Leq(h) dBA	Leq(h) dBA
12:00 - 1:00	am	--	46
1:00 - 2:00	am	--	46
2:00 - 3:00	am	--	45
3:00 - 4:00	am	--	45
4:00 - 5:00	am	--	45
5:00 - 6:00	am	--	44
6:00 - 7:00	am	--	48
7:00 - 8:00	am	--	48
8:00 - 9:00	am	--	46
9:00 - 10:00	am	--	47
10:00 - 11:00	am	50	53
11:00 - 12:00	am	54	53
12:00 - 1:00	pm	52	--
1:00 - 2:00	pm	55	--
2:00 - 3:00	pm	56	--
3:00 - 4:00	pm	49	--
4:00 - 5:00	pm	54	--
5:00 - 6:00	pm	54	--
6:00 - 7:00	pm	49	--
7:00 - 8:00	pm	51	--
8:00 - 9:00	pm	55	--
9:00 - 10:00	pm	52	--
10:00 - 11:00	pm	53	--
11:00 - 12:00	pm	50	--

Hourly Noise Levels, Leq(h)

Location: Meter 0333 - Site 2 - South Bay Substation

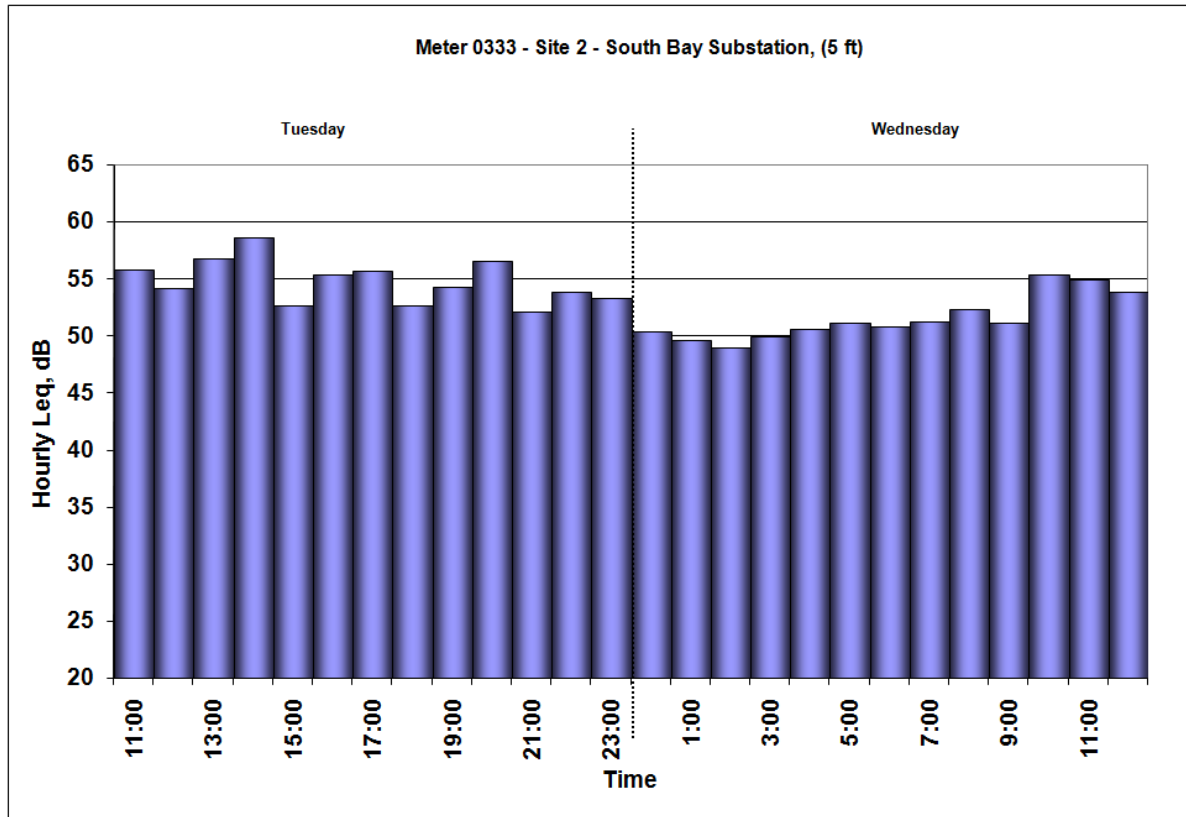
CNEL: 59

Position: (5 ft)

Ldn: 58

Sources: Local Traffic, Interstate 5, Birds, Small Aircraft (Jets and Planes)

Date: 8/3/2010 to 8/4/2010

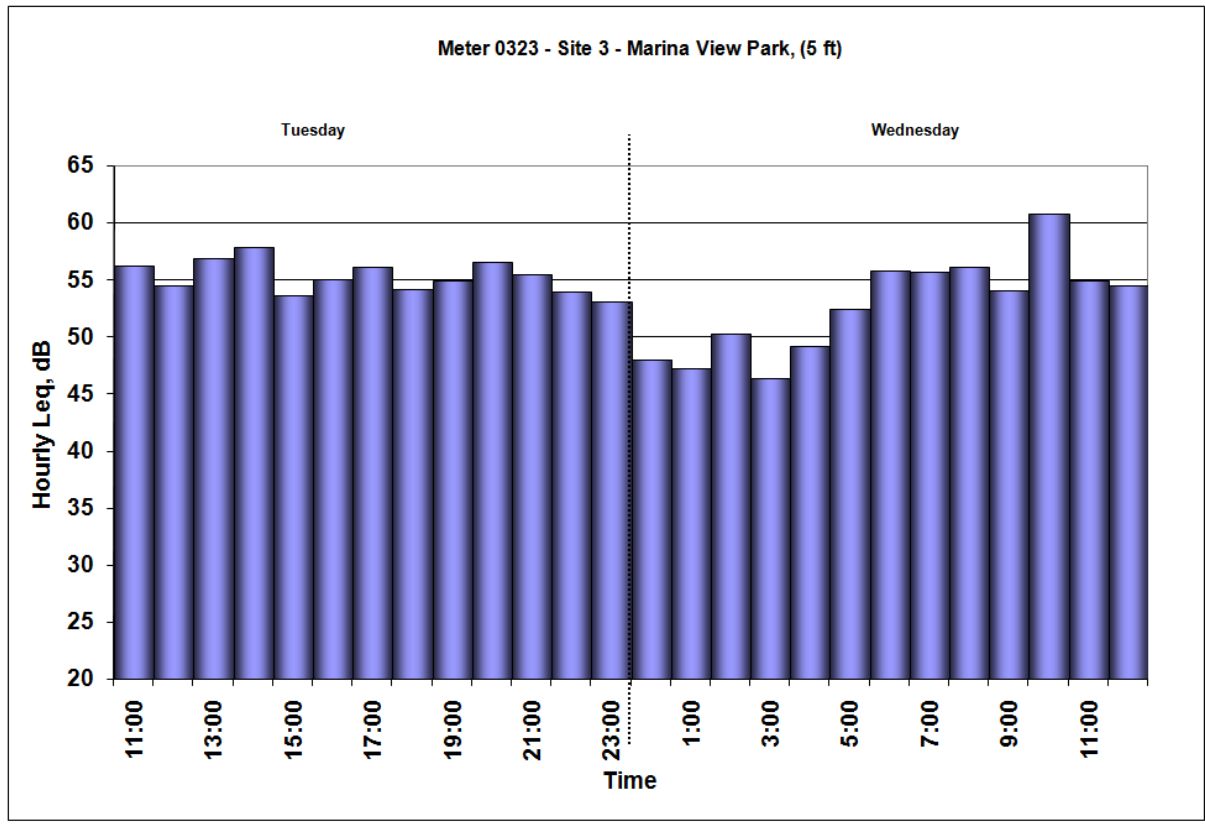


Date:		8/3/2010	8/4/2010
Day:		Tue	Wed
TIME		Leq(h) dBA	Leq(h) dBA
12:00 - 1:00	am	--	50
1:00 - 2:00	am	--	50
2:00 - 3:00	am	--	49
3:00 - 4:00	am	--	50
4:00 - 5:00	am	--	51
5:00 - 6:00	am	--	51
6:00 - 7:00	am	--	51
7:00 - 8:00	am	--	51
8:00 - 9:00	am	--	52
9:00 - 10:00	am	--	51
10:00 - 11:00	am	--	55
11:00 - 12:00	am	56	55
12:00 - 1:00	pm	54	54
1:00 - 2:00	pm	57	--
2:00 - 3:00	pm	59	--
3:00 - 4:00	pm	53	--
4:00 - 5:00	pm	55	--
5:00 - 6:00	pm	56	--
6:00 - 7:00	pm	53	--
7:00 - 8:00	pm	54	--
8:00 - 9:00	pm	57	--
9:00 - 10:00	pm	52	--
10:00 - 11:00	pm	54	--
11:00 - 12:00	pm	53	--

Hourly Noise Levels, Leq(h)

Location: Meter 0323 - Site 3 - Marina View Park
Position: (5 ft)
Sources: Local Traffic, Interstate 5, Birds, Small Aircraft (Jets and Planes)
Date: 8/3/2010 to 8/4/2010

CNEL: 60
Ldn: 59




Date:		8/3/2010	8/4/2010
Day:		Tue	Wed
TIME		Leq(h) dBA	Leq(h) dBA
12:00 - 1:00	am	--	46
1:00 - 2:00	am	--	47
2:00 - 3:00	am	--	50
3:00 - 4:00	am	--	46
4:00 - 5:00	am	--	49
5:00 - 6:00	am	--	52
6:00 - 7:00	am	--	56
7:00 - 8:00	am	--	56
8:00 - 9:00	am	--	56
9:00 - 10:00	am	--	54
10:00 - 11:00	am	--	61
11:00 - 12:00	am	56	55
12:00 - 1:00	pm	55	55
1:00 - 2:00	pm	57	--
2:00 - 3:00	pm	58	--
3:00 - 4:00	pm	54	--
4:00 - 5:00	pm	55	--
5:00 - 6:00	pm	56	--
6:00 - 7:00	pm	54	--
7:00 - 8:00	pm	55	--
8:00 - 9:00	pm	57	--
9:00 - 10:00	pm	56	--
10:00 - 11:00	pm	54	--
11:00 - 12:00	pm	53	--

Appendix B - Hourly Weather Data


Hourly Weather Reports

8/3/10


12:05 AM

 Partly Cloudy **64°F**
64°F 61°F 90% 9.0
miles 29.94 ↕
inches From WNW
6mph


1:05 AM

 Partly Cloudy **63°F**
63°F 61°F 93% 9.0
miles 29.93 ↓
inches CALM


2:05 AM

 Partly Cloudy **60°F**
60°F 58°F 93% 7.0
miles 29.92 ↓
inches CALM


3:05 AM

 Fair **61°F**
61°F 59°F 93% 7.0
miles 29.92 ↕
inches From WSW
3mph


4:05 AM

 Cloudy **62°F**
62°F 60°F 93% 7.0
miles 29.93 ↑
inches From WSW
3mph


5:05 AM

 Cloudy **64°F**
64°F 60°F 87% 6.0
miles 29.93 ↕
inches From NW
6mph Sunrise at 6:04 AM


6:05 AM

 Cloudy **63°F**
63°F 60°F 90% 6.0
miles 29.96 ↑
inches From WNW
6mph


7:05 AM

 Cloudy **63°F**
63°F 60°F 90% 4.0
miles 29.97 ↑
inches From WNW
5mph


8:05 AM

 Cloudy **63°F**
63°F 60°F 90% 5.0
miles 29.99 ↑
inches From WNW
5mph


9:05 AM

 Cloudy **63°F**
63°F 60°F 90% 5.0
miles 30.00 ↑
inches From W
3mph


10:05 AM

 Cloudy **64°F**
64°F 60°F 87% 5.0
miles 30.01 ↑
inches From WSW
6mph


11:05 AM

 Cloudy **66°F**
66°F 63°F 90% 6.0
miles 30.01 ↕
inches From NW
5mph


12:05 PM

 Mostly Cloudy **66°F**
66°F 60°F 81% 9.0
miles 30.00 ↓
inches From W
7mph


1:05 PM

 Mostly Cloudy **69°F**
69°F 60°F 73% 10.0
miles 29.99 ↓
inches From W
9mph


2:05 PM

 Mostly Cloudy **68°F**
68°F 59°F 73% 10.0
miles 29.99 ↔
inches From W
10mph


3:05 PM

 Mostly Cloudy **69°F**
69°F 59°F 70% 10.0
miles 29.97 ↓
inches From WNW
12mph


4:05 PM

 Mostly Cloudy **67°F**
67°F 58°F 73% 10.0
miles 29.95 ↓
inches From W
12mph


5:05 PM

 Partly Cloudy **67°F**
67°F 59°F 76% 10.0
miles 29.94 ↓
inches From W
10mph


6:05 PM

 Partly Cloudy **66°F**
66°F 58°F 75% 10.0
miles 29.93 ↓
inches From W
7mph


7:05 PM

 Partly Cloudy **65°F**
65°F 58°F 78% 10.0
miles 29.93 ↔
inches From WSW
7mph **Sunset at 7:45 PM**


8:05 PM

 Partly Cloudy **63°F**
63°F 59°F 87% 10.0
miles 29.93 ↔
inches From WSW
5mph

9:05 PM

 Partly Cloudy **62°F**
62°F 60°F 93% 10.0
miles 29.94 ↑
inches From SW
3mph

10:05 PM

 Partly Cloudy **62°F**
62°F 59°F 90% 10.0
miles 29.96 ↑
inches From SSW
3mph

11:05 PM

 Partly Cloudy **61°F**


61°F 59°F 93% 10.0

miles 29.96 ↗

inches CALM


Hourly Weather Reports 8/4/10

12:05 AM

 Cloudy **62°F**


62°F 59°F 90% 10.0
miles 29.96 ↕
inches CALM

1:05 AM

 Cloudy **63°F**


63°F 60°F 90% 10.0
miles 29.96 ↕
inches From WSW
3mph

2:05 AM

 Cloudy **63°F**


63°F 59°F 87% 10.0
miles 29.96 ↕
inches From SW
5mph

3:05 AM

 Cloudy **63°F**


63°F 59°F 87% 10.0
miles 29.95 ↓
inches From NNE
3mph

4:05 AM

 Cloudy **62°F**


62°F 59°F 90% 10.0
miles 29.95 ↕
inches CALM

5:05 AM

 Cloudy **62°F**

62°F 59°F 90% 10.0
miles 29.95 ↕
inches CALM Sunrise at 6:04 AM

6:05 AM

 Cloudy **62°F**


62°F 58°F 86% 10.0
miles 29.96 ↑
inches From W
3mph

7:05 AM

 Cloudy **61°F**


61°F 59°F 93% 9.0
miles 29.97 ↑
inches CALM

8:05 AM

 Cloudy **62°F**


62°F 59°F 90% 9.0
miles 29.98 ↑
inches CALM

9:05 AM

 Cloudy **62°F**

62°F 59°F 90% 10.0
miles 29.98 ↕
inches From WSW
5mph

10:05 AM

 Cloudy **63°F**


63°F 58°F 84% 10.0
miles 29.99 ↑
inches From SW
7mph

11:05 AM


 Mostly Cloudy **65°F**

65°F 58°F 78% 10.0
miles 29.98 ↓
inches From WSW
6mph


12:05 PM

 Partly Cloudy **66°F**
66°F 58°F 75% 10.0
miles 29.98 ↗
inches From WSW
10mph


1:05 PM

 Partly Cloudy **67°F**
67°F 57°F 70% 10.0
miles 29.97 ↓
inches From WSW
9mph


2:05 PM

 Fair **67°F**
67°F 56°F 68% 10.0
miles 29.96 ↓
inches From WSW
9mph


3:05 PM

 Fair **67°F**
67°F 57°F 70% 10.0
miles 29.95 ↓
inches From SW
10mph


4:05 PM

 Fair **66°F**
66°F 56°F 70% 10.0
miles 29.93 ↓
inches From WSW
8mph


5:05 PM

 Fair **66°F**
66°F 57°F 73% 10.0
miles 29.92 ↓
inches From WSW
8mph


6:05 PM

 Fair **65°F**
65°F 57°F 75% 10.0
miles 29.91 ↓
inches From SW
9mph


7:05 PM

 Partly Cloudy **64°F**
64°F 57°F 78% 10.0
miles 29.91 ↗
inches From WSW
6mph **Sunset at 7:44 PM**


8:05 PM

 Mostly Cloudy **64°F**
64°F 58°F 80% 10.0
miles 29.91 ↗
inches From W
8mph


9:05 PM

 Mostly Cloudy **63°F**
63°F 59°F 87% 10.0
miles 29.92 ↑
inches From NW
4mph

10:05 PM

 Cloudy **63°F**
63°F 59°F 87% 10.0
miles 29.93 ↑
inches From W
3mph

11:05 PM

 Cloudy **62°F**
62°F 59°F 90% 10.0
miles 29.93 ↗
inches From SSW
3mph

