



MEMORANDUM

To: Robert Miller
Turner Construction

From: Zack Dennis
ATS Consulting

Date: December 13, 2007

Subject: Monthly Noise Report for Raintree Noise Monitors, September 2007

This memorandum presents the results of the noise monitoring near the Raintree residential complex near the West Los Angeles College (WLAC) campus. There are four monitors positioned near the property lines of the Raintree complex to monitor truck noise from the haul road that runs from the northwest corner of campus to Jefferson Boulevard. Each monitor is an independent station consisting of a microphone, sound level meter, cellphone modem, and assorted ancillary equipment. The locations of the monitors are shown in Figure 1.

Currently Monitors 3 and 4 are not active due to problems providing power. We are working with Raintree to provide AC power to the units and will begin reporting data as soon as this occurs.

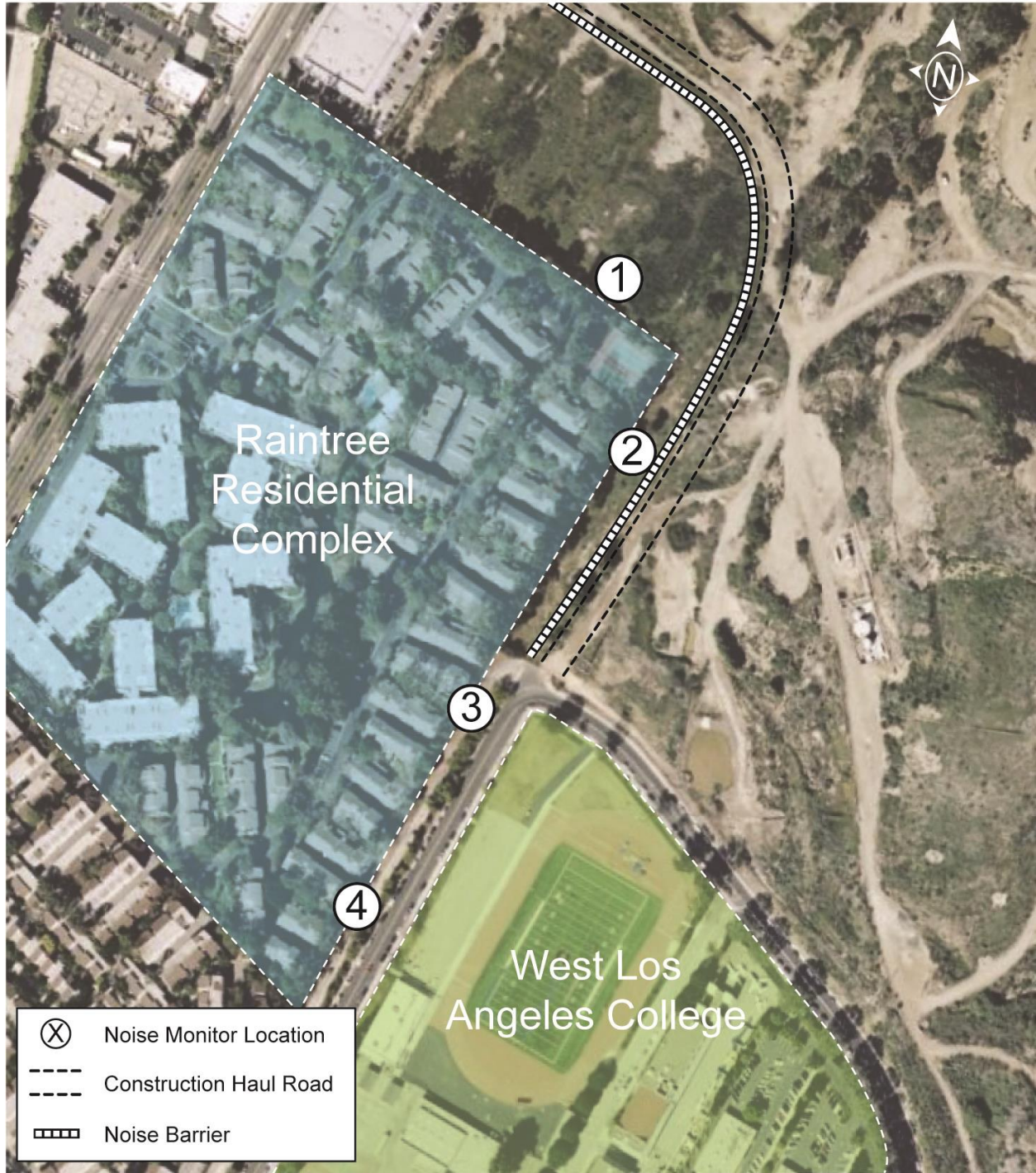


Figure 1: Noise Monitor Locations

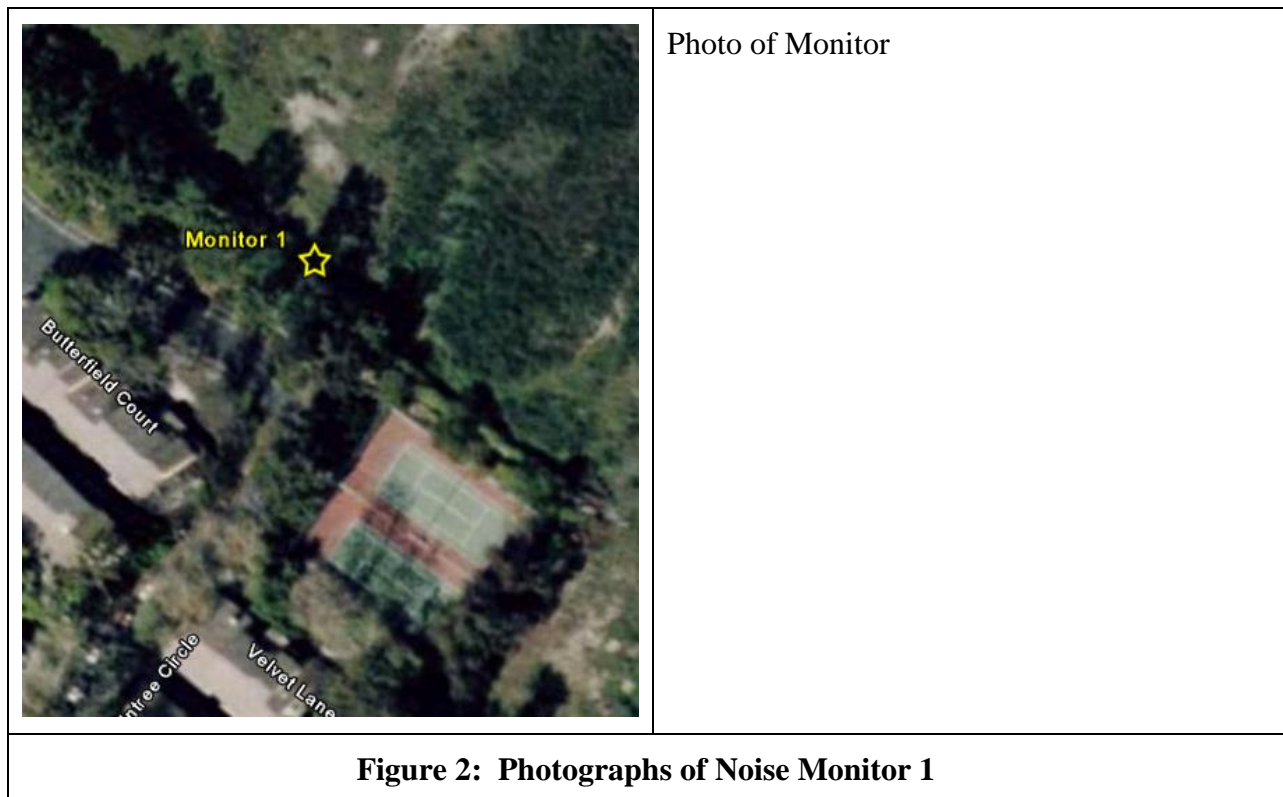


Monitor 1

Monitor 1 is located to the northeast of the Raintree complex, near the property wall that separates Raintree Circle from where the haul road cuts through to Jefferson Boulevard. Due to topography, the microphone head is approximately level with the upper stories of the Raintree residences. The monitor is located about 250 feet away from the closest point on the haul road. Prior to construction activity, the primary noise sources in this area were residential traffic noise and athletic activity on the nearby tennis courts.

| Table 1. Summary of Monthly Results, Monitor 1 | | | | |
|---|-------------------------|----------------|----------------|---------------------------|
| Metric | Sound Level, dBA | | | |
| | Average | Maximum | Minimum | Standard Deviation |
| Day-Night Sound Level (Ldn) | 54 | 57 | 52 | 1.4 |
| Daytime Hourly Leq | 51 | 55 | 48 | 2.0 |

Source: ATS Consulting, 2005



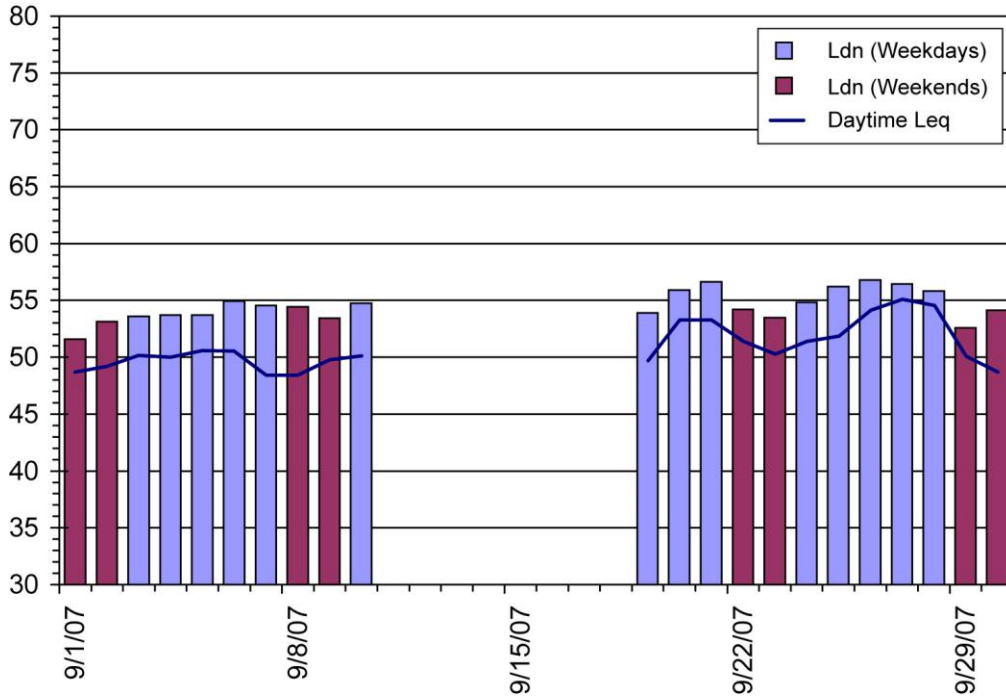


Figure 3: Ldn and Daytime Leq Results

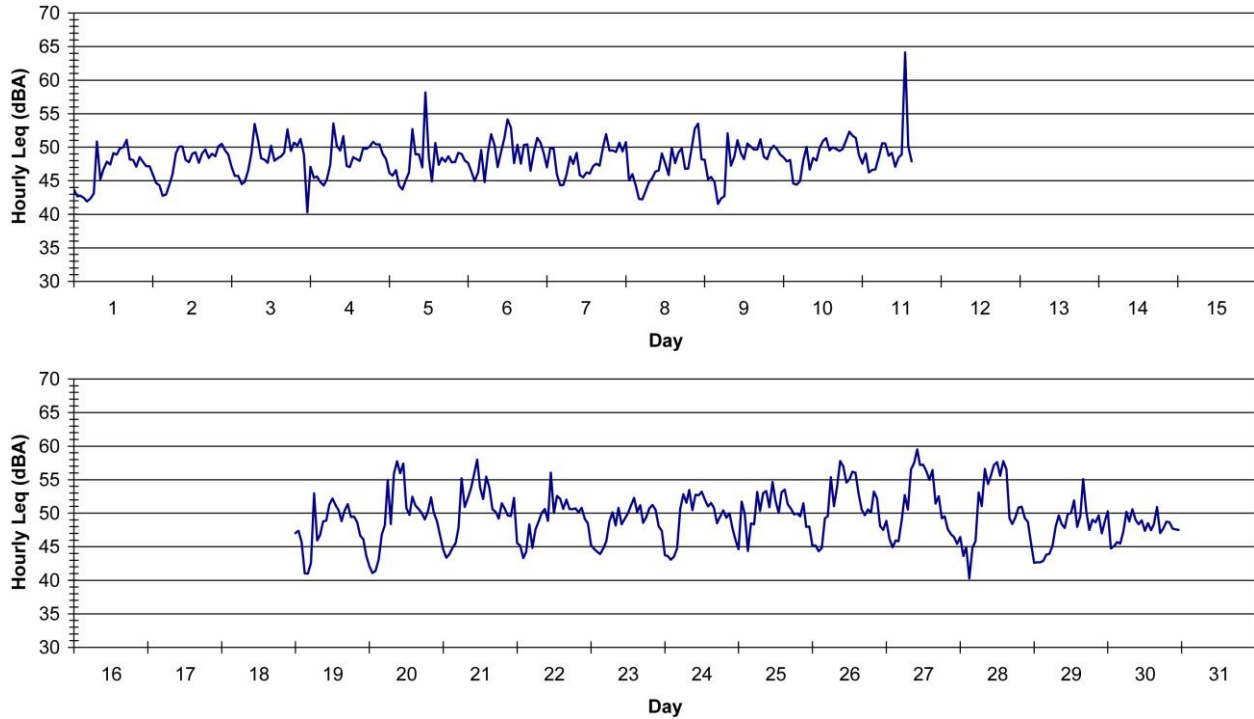


Figure 4: Hourly Leq Results



**Table 2. Daily Results
Monitor 1, September 2007**

| Date | Sound Level, dBA | | | |
|---------|------------------|-----------------|-----------------|-----------------|
| | Daytime Leq | Maximum | Minimum | Ldn |
| 9/1/07 | 49 | 62 | 40 | 52 |
| 9/2/07 | 49 | 62 | 41 | 53 |
| 9/3/07 | 50 | 67 | 43 | 54 |
| 9/4/07 | 50 | 62 | 43 | 54 |
| 9/5/07 | 51 | 64 | 42 | 54 |
| 9/6/07 | 51 | 66 | 42 | 55 |
| 9/7/07 | 48 | 63 | 41 | 55 |
| 9/8/07 | 48 | 60 | 40 | 54 |
| 9/9/07 | 50 | 61 | 40 | 53 |
| 9/10/07 | 50 | 64 | 41 | 55 |
| 9/11/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/12/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/13/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/14/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/15/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/16/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/17/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/18/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/19/07 | 50 | 65 | 39 | 54 |
| 9/20/07 | 53 | 63 | 39 | 56 |
| 9/21/07 | 53 | 66 | 42 | 57 |
| 9/22/07 | 51 | 71 | 41 | 54 |
| 9/23/07 | 50 | 64 | 42 | 53 |
| 9/24/07 | 51 | 63 | 42 | 55 |
| 9/25/07 | 52 | 69 | 42 | 56 |
| 9/26/07 | 54 | 66 | 43 | 57 |
| 9/27/07 | 55 | 65 | 41 | 56 |
| 9/28/07 | 55 | 69 | 39 | 56 |
| 9/29/07 | 50 | 70 | 41 | 53 |
| 9/30/07 | 49 | 64 | 41 | 54 |

Notes:
1. Noise levels were not recorded due to monitor power failure.



Discussion

During the month of September the overall noise levels were generally very consistent with historical values. On September 11 an unusually loud event was followed by a power failure that was not discovered until the weekly data download on September 17. A visit to the site revealed that the photovoltaic cell had been moved into the shade during brush clearing operations in the area near the monitor. Although no damage to the monitor or photovoltaic cell occurred, the monitor failed to record noise levels for the week. Brush clearing would have most likely taken several days and we would expect daytime noise levels during this time to be significantly higher than what is typically observed. On September 26, 27, and 28 the daytime noise levels were about 5 dBA higher than is typical. The majority of the construction of the haul road occurred at this time; this was probably noticeable to residents at the Raintree complex.

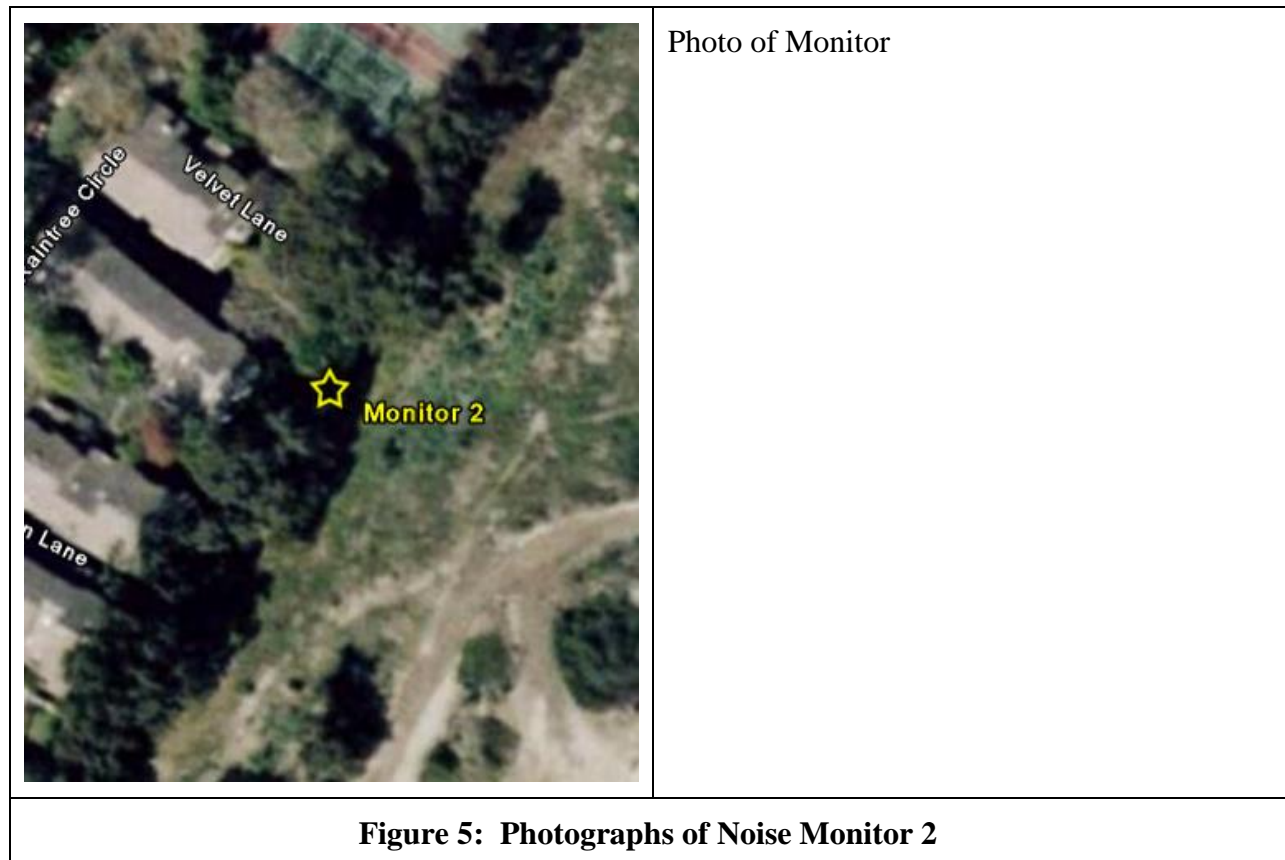


Monitor 2

Monitor 2 is located near the northeast corner of the Raintree complex, south of the tennis courts and close to the property fence on the eastern edge of the Raintree complex. The microphone head is approximately level with the lower stories of the Raintree residences. The monitor is located about 100 feet away from the closest point on the haul road. Prior to construction activity, the primary noise sources in this area were residential traffic noise and athletic activity on the nearby tennis courts.

| Table 3. Summary of Monthly Results, Monitor 1 | | | | |
|---|--------------------------------|----------------|----------------|---------------------------|
| Metric | Hourly Sound Level, dBA | | | |
| | Average | Maximum | Minimum | Standard Deviation |
| Day-Night Sound Level (Ldn) | 56 | 63 | 53 | 2.3 |
| Daytime Hourly Leq | 54 | 64 | 49 | 4.1 |

Source: ATS Consulting, 2007



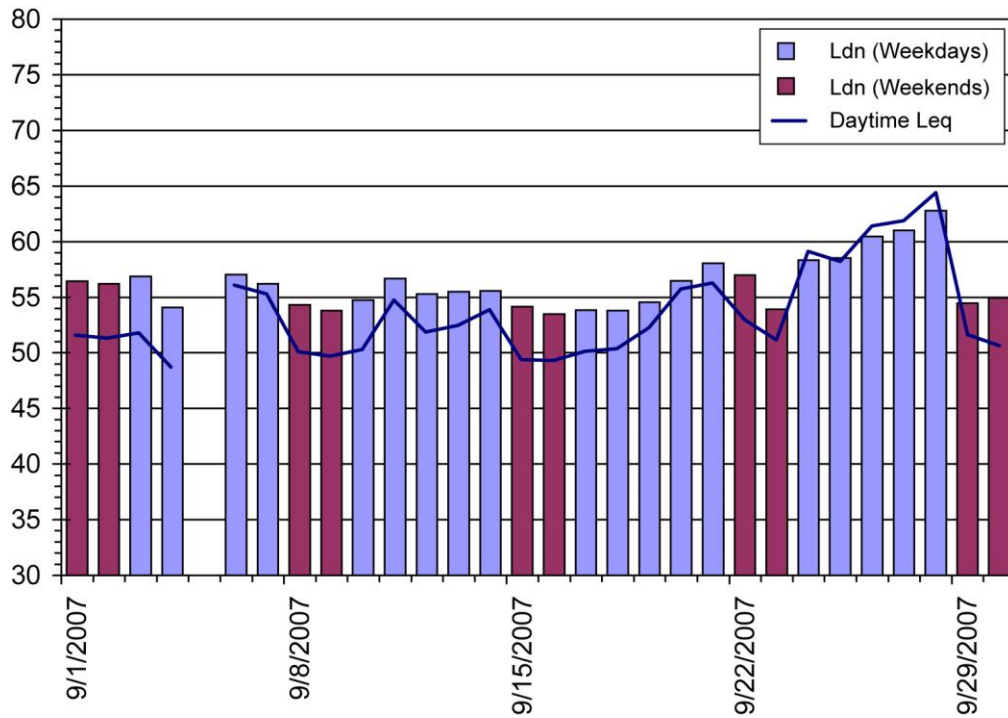


Figure 6: Ldn and Daytime Leq Results

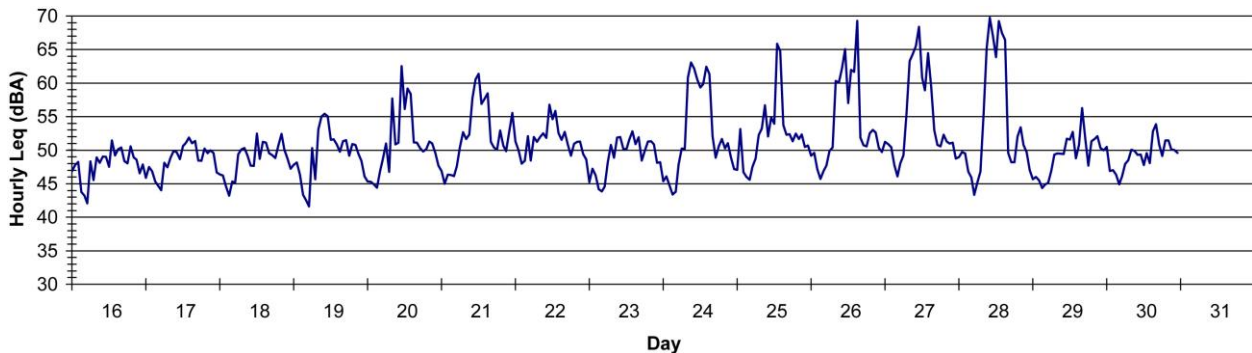
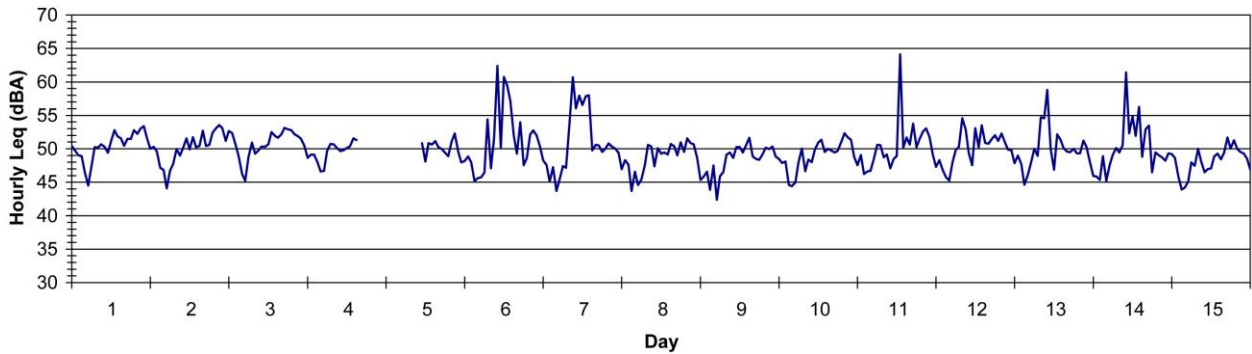


Figure 7: Hourly Leq Results



**Table 4. Daily Results
Monitor 2, June 2007**

| Date | Sound Level, dBA | | | |
|---------|------------------|-----------------|-----------------|-----------------|
| | Daytime Leq | Maximum | Minimum | Ldn |
| 9/1/07 | 51 | 63 | 42 | 56 |
| 9/2/07 | 51 | 62 | 42 | 56 |
| 9/3/07 | 52 | 63 | 43 | 57 |
| 9/4/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/5/07 | -- ¹ | -- ¹ | -- ¹ | -- ¹ |
| 9/6/07 | 56 | 71 | 40 | 57 |
| 9/7/07 | 55 | 71 | 41 | 56 |
| 9/8/07 | 50 | 64 | 41 | 54 |
| 9/9/07 | 50 | 62 | 40 | 54 |
| 9/10/07 | 50 | 64 | 41 | 55 |
| 9/11/07 | 55 | 70 | 42 | 57 |
| 9/12/07 | 52 | 68 | 42 | 55 |
| 9/13/07 | 52 | 69 | 41 | 56 |
| 9/14/07 | 54 | 76 | 42 | 56 |
| 9/15/07 | 49 | 65 | 41 | 54 |
| 9/16/07 | 49 | 59 | 40 | 53 |
| 9/17/07 | 50 | 63 | 41 | 54 |
| 9/18/07 | 50 | 64 | 41 | 54 |
| 9/19/07 | 52 | 68 | 38 | 55 |
| 9/20/07 | 56 | 74 | 40 | 56 |
| 9/21/07 | 56 | 71 | 43 | 58 |
| 9/22/07 | 53 | 71 | 42 | 57 |
| 9/23/07 | 51 | 64 | 41 | 54 |
| 9/24/07 | 59 | 69 | 41 | 58 |
| 9/25/07 | 58 | 72 | 43 | 59 |
| 9/26/07 | 61 | 73 | 42 | 60 |
| 9/27/07 | 62 | 77 | 43 | 61 |
| 9/28/07 | 64 | 75 | 39 | 63 |
| 9/29/07 | 51 | 69 | 40 | 54 |
| 9/30/07 | 50 | 66 | 41 | 55 |

Notes:
1. Data was lost when microphone was recalibrated.



Discussion

During the month of September the noise levels in the vicinity of Monitor 2 were higher than was observed during June, July, and August. The average Ldn of 56 dBA was higher than the typical Ldn of 54 dBA, and the daytime Leq of 54 dBA was higher than the typical daytime Leq of about 51 dBA. This is primarily due to the activity during the last week of the month, between September 24 and 28. We believe this corresponds to the time when the haul road was constructed.