

## **Appendix C1**

### **El Sobrante Landfill Supplemental Noise Evaluation**



February 10, 2009

Mr. Jeramey Harding  
T&B PLANNING  
144 West D Street, Suite 12  
Encinitas, CA 92024

**Subject: EI Sobrante Landfill Noise Analysis Addendum**

Dear Mr. Harding:

This letter presents an updated analysis of the stationary noise impacts associated with the operations at the EI Sobrante Landfill in response to comments provided by Allen Matkins Leck Gamble Mallory & Natsis LLP on February 4, 2009. In the April 16, 2008 EI Sobrante Landfill noise analysis, the noise level measurement results for Location A, located at the closest residence to the landfill, and Location B, located adjacent to the existing cement piping facility, were mistakenly represented. The attached Tables 1 and 2, accurately reflect the noise levels associated with the appropriate measurement locations. The daytime noise levels at Location A ranged from 47.1 to 51.1 dBA Leq with nighttime noise levels ranging from 47.9 to 50.5 dBA Leq. The daytime noise levels at Location B ranged from 52.3 to 56.1 dBA Leq with nighttime noise levels ranging from 50.0 to 58.1 dBA Leq.

The nearest noise sensitive uses near the Landfill are rural single family homes approximately 3,600 feet south of the site in Dawson Canyon. These homes are located in the Canyon have their line of sight to the Landfill obstructed by rolling hills that reach up to 500 feet above the Canyon floor. To account for the noise attenuation provided the rolling hills, additional calculations were performed to determine the effect that the intervening hills would have on the reduction of the potential noise impacts from the EI Sobrante Landfill operations based on a topographic map of the study area. The analysis indicates that the geometric spreading along with the intervening terrain is estimated to dissipate the EI Sobrante Landfill noise, from 95.0 dBA at 50 feet to 40.0 dBA at 3,600 feet (see Appendix "A").

Noise monitoring location A shows that the existing noise level during the quietest hour when the Landfill is not operating (from midnight to 4 AM) is 47.9 dBA Leq. The projected noise level with the operation of the Landfill at location A is 40.0 dBA Leq. Table 3 shows that when combined with the

existing ambient noise, the resulting noise levels at the existing single family homes is 48.6 dBA Leq, resulting in an increase of 0.7 dBA Leq over existing conditions observed at the quietest hour. For community noise, an increase in noise levels of less than 3 dBA is considered "barely perceptible". In addition, the result of the existing noise level measurements at the nearest homes (location A) shows that the noise levels during nighttime hours at this location currently range from 47.9 to 50.5 dBA Leq.

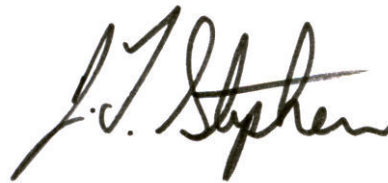
In summary, the operation of the Landfill will create a less than significant barely perceptible noise impact to the nearest noise sensitive homes. In addition, to minimize the potential operational noise, all equipment, fixed or mobile, should continue to be maintained with properly operating mufflers, consistent with manufacturers' standards. If you have any questions, please contact us directly at (949) 660-1994.

Respectfully submitted,

URBAN CROSSROADS, INC.



Bill Lawson, PE, INCE  
Principal



J.T. Stephens, INCE  
Acoustical Engineer

BL:JS:lr  
JN:05216-04 Addendum

TABLE 1

EXISTING (AMBIENT) LONG-TERM NOISE LEVEL MEASUREMENTS<sup>1</sup>

OBSERVER LOCATION <sup>2</sup>	DESCRIPTION	TIME OF MEASUREMENT <sup>3</sup>	PRIMARY NOISE SOURCE	DAYTIME NOISE LEVELS (Leq dBA) 7 AM - 7 PM	NIGHTTIME NOISE LEVELS (Leq dBA) 7 PM - 7 AM
A	Located at the nearest noise sensitive residences to the south of the El Sobrante Landfill	February 5-6, 2008	Ambient Noise	47.1 - 51.1	47.9 - 50.5
B	Located 100 feet north of the Clay Canyon Drive centerline near the existing cement piping factory.	February 5-6, 2008	Traffic on Clay Canyon Drive and operations at the cement piping factory	52.3 - 56.1	50.0 - 58.1
C	Located 100 feet west of the El Sobrante Access centerline south of the landfill facility	February 5-6, 2008	Traffic on the El Sobrante Access Road	53.7 - 61.5	50.4 - 60.3

<sup>1</sup> Noise measurements taken by Urban Crossroads, Inc. on February 5-6, 2008.

<sup>2</sup> See Exhibit 5-A for the location of the monitoring sites, and Appendix "D" for Study Area Photos.

<sup>3</sup> All locations were monitored for a 24-hour period.

TABLE 2

## LONG-TERM NOISE LEVEL MEASUREMENTS HOURLY RESULTS

HOUR	LOCATION A (1-hour Leq)	LOCATION B (1-hour Leq)	LOCATION C (1-hour Leq)
0	48.3	50.2	51.8
1	48.1	50.0	50.4
2	48.3	50.7	53.5
3	49.1	50.8	55.6
4	49.2	54.4	60.3
5	49.8	55.9	58.6
6	50.5	58.1	60.0
7	51.1	56.1	59.6
8	50.8	54.0	60.4
9	48.4	53.5	59.0
10	48.3	53.0	61.5
11	48.8	52.9	59.9
12	49.7	55.4	61.0
13	48.2	54.2	58.8
14	48.4	52.7	59.7
15	47.2	52.6	58.8
16	47.1	53.8	58.0
17	47.2	53.4	56.6
18	47.8	53.2	53.7
19	48.0	52.3	55.5
20	48.7	53.8	54.3
21	47.9	52.1	52.4
22	48.1	52.5	55.2
23	47.9	52.2	54.5

TABLE 3

## NIGHTTIME PROJECT NOISE CONTRIBUTIONS (FROM 12 AM TO 4 AM)

OBSERVER LOCATION <sup>1</sup>	CONDITION	EXTERIOR NOISE LEVELS (Leq dBA)
A	Project Only Noise Total	40.0
	Existing Ambient Noise Level (quietest hour recorded)	47.9
	Combined Project & Ambient Noise Level	48.6
	Project Contribution	0.7
County of Riverside Nighttime Residential Noise Standard		45.0

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<sup>1</sup> See Exhibit 5-A for the observer locations.

## **APPENDIX A**

### STATIONARY NOISE MODEL IMPACT CALCULATIONS

## STATIONARY SOURCE NOISE PREDICTION MODEL

Source: Landfill Activities  
Observer Location: A

Project Name: El Sobrante Landfill  
Job Number: 5216  
Analyst: J.T. Stephens

### NOISE MODEL INPUTS

Noise Distance to Observer	3,600.0 feet	Barrier Height:	90.0 feet
Noise Distance to Barrier:	1,170.0 feet	Barrier Type (0-Wall, 1-Berm):	0.0
Barrier Distance to Observer:	2,430.0 feet		
Noise Height:	5.0 feet		
Observer Height (Above Pad):	5.0 feet	Barrier Breaks Line of Sight:	Yes
Observer Elevation:	1,115.0 feet	Wall Located at Noise Source Elevation:	Yes
Noise Source Elevation:	1,360.0 feet		
Drop Off Coefficient:	20.0 (20 = 6 dBA per doubling of distance, 15 = 4.5 dBA per doubling of distance)		

### NOISE MODEL PROJECTIONS

Noise Level	Distance (feet)	Leq
Reference (Sample)	50.0	95.0
Distance Attenuation	3,600.0	-37.1
Shielding (Barrier Attenuation)		-17.9
Adjusted (Distance + Barrier)	3,600.0	40.0