



Matrix Environmental

**Monitoring of
Noise Levels at the
Milltown Compost Site
Milltownmore, Fethard
Co. Tipperary.
December 2017
W0270-01**

For the Attention of:

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Ref: Noise 2017

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TABLE OF CONTENTS

- 1.0 INTRODUCTION
- 2.0 METHODOLOGY
- 3.0 INSTRUMENTATION EQUIPMENT USED
- 4.0 RESULTS
- 5.0 DISCUSSION

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1.0 INTRODUCTION

Milltown Compost operates a composting site at Milltownmore, Fethard, Co. Tipperary. Matrix Environmental were contracted to carry out a daytime noise survey in order to assess the noise contribution from on site activities at the nearest sensitive receptor to the compost site. The site was subsequently visited on the 12th of December 2017 to undertake the noise survey. This report presents details of both the methodologies employed and results obtained.

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2.0 METHODOLOGIES

2.1 Measurement Parameters

2.1.1 L_{AeqT} Values

L_{AeqT} values represent the continuous equivalent sound level over a specified time (t). This value expresses the average levels over time and is a linear integral.

2.1.2 L_{AF Max}

The maximum RMS, A-Weighted sound pressure level occurring within a specified time period.

2.1.3 L₉₀ and L₁₀ Values

The L₉₀ and L₁₀ values represent the sound levels exceeded for a percentage of the instrument measuring time. L₁₀ indicates that for 10% of the monitoring period, the sound levels were greater than the quoted value. L₁₀ is a good statistical parameter for expressing event noise such as passing traffic. The L₉₀ represents post event sound levels and is a good indicator of background noise levels.

2.2 Standards and Guidance

The acoustic assessment and subsequent report are in accordance with International Standard Organisation (ISO) 1996 Acoustics – Description and Measurement of Environmental Noise Part 1, 2, and 3 in addition to the Environmental Protection Agency: Environmental Noise Survey – Guidance Document NG4

2.3 Site information

2.3.1 All measurements were taken at 1.5 m height above local ground level and 1-2 m away from reflective surfaces.

2.3.2 The weather was dry and cold with slight breeze from a south-westerly direction at the time of the assessment.

2.3.3 Table 2.2 describes the locations of the monitoring positions for the noise monitoring assessment.

2.3.4 Monitoring Locations

The following is a detailed description of the noise monitoring points:

Measurement No.	Location
NSL	At the entrance to the NSL to the Northwest of the site

3.0 INSTRUMENTATION EQUIPMENT USED

The following equipment was employed during the acoustic assessment on 12th of December 2017.

Bruel & Kjaer Light Noise Monitor

Model No: 2250 Light

Serial No. 3000428

Date of Certificate and Calibration

22/11/2016

Microphone Type: B & K Type 4950

Serial No: 2755058

Calibrator: B & K Type 4231

Serial No: 2415925

Date of Certificate and Calibration

21/11/2016

Tripod

On Site Calibration

The instrument was calibrated immediately before and after the measurement periods with no drift in calibration level noted.

Calibration Date - 12/12/17

Calibration level - 94dB(A)

4.0 RESULTS

Tables 4.1 present the results of the noise monitoring survey carried out at the Milltownmore site on the 12th of December 2017.

TABLE 4.1: DAY-TIME NOISE MEASUREMENT RESULTS 07:50 -13:00					
Location / Measurement No.	Measurement Period (min)	L _{eq} dB(A)	L ₁₀ dB(A)	L ₉₀ dB(A)	L _F Max dB(A)
NSL No1	30	52	56	38	77
NSL No2	30	50	54	38	80
NSL No3	30	42	50	37	59

TABLE 4.2: EVENING-TIME NOISE MEASUREMENT RESULTS 19:00-23:00					
Location / Measurement No.	Measurement Period (min)	L _{eq} dB(A)	L ₁₀ dB(A)	L ₉₀ dB(A)	L _F Max dB(A)
NSL No1	No evening time monitoring was carried out at the site as the site is not operational past 18:00 each day. Past evening time results (see 2015 noise monitoring report) detail that no site noise is audible.				
NSL No2					

TABLE 4.3: NIGHT-TIME NOISE MEASUREMENT RESULTS 23:00 -07:00					
Location / Measurement No.	Measurement Period (min)	L _{eq} dB(A)	L ₁₀ dB(A)	L ₉₀ dB(A)	L _F Max dB(A)
NSL No1	No Night time monitoring was carried out at the site during the survey, the site is not operational during the hours 18:00 to 07:00.				
NSL No2					

5.0 DISCUSSION

NIGHT-TIME NOISE

The Milltown Composting site is only operational during daytime hours (Fans remain on during the evening and night-time periods but are not audible at the NSL - see previous noise reports).

EVENING TIME NOISE.

The Milltown Composting site is only operational during daytime hours (Fans remain on during the evening and night-time periods but are not audible at the NSL - see previous noise reports).

DAYTIME NOISE.

Location - NSL: At entrance to the NSL.

No tonal noise observed at the NSL - see graphs in appendix 1

Measurement No1:

The L_{Aeq} recorded at this location of 52 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a tractor from the adjacent farm passing by the noise meter. During the monitoring period no site traffic passed the noise meter. One jeep and two tractors associated with adjacent agricultural activities passed by. The main contributors to the noise levels in the vicinity of the noise monitoring location was bird song and agricultural activities. No site noise was audible at the NSL during this monitoring period.

Measurement No2:

The L_{Aeq} recorded at this location of 50 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a lorry delivering waste to the site passing by the noise meter. The main contributors to the noise levels in the vicinity of the noise monitoring location was the lorry, agricultural

activities and bird song. No site noise was audible at the NSL during this monitoring period.

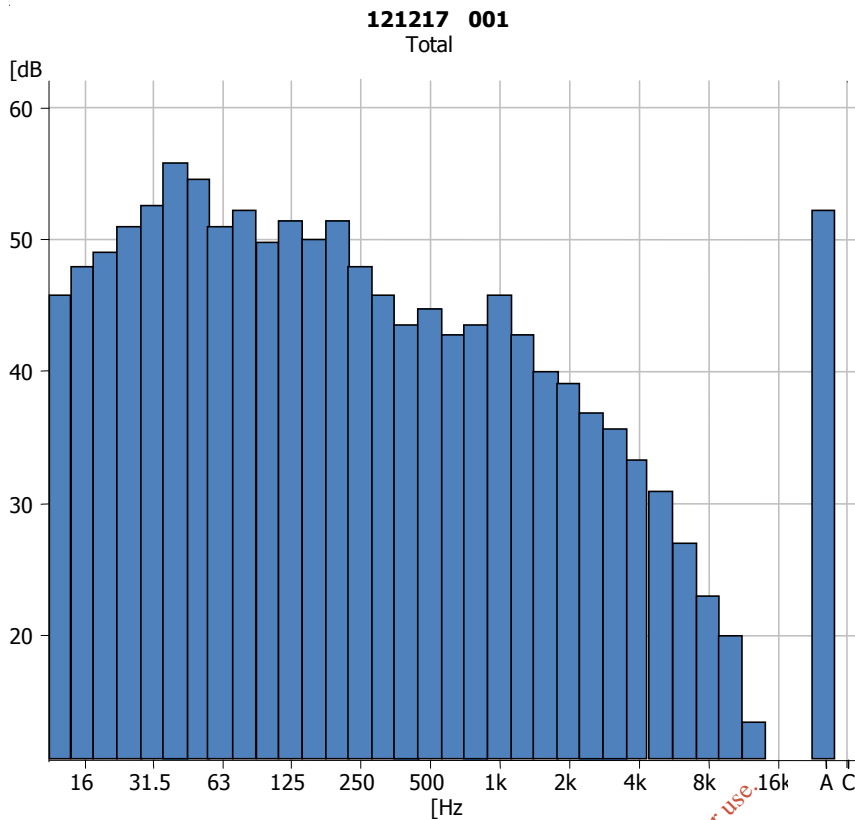
Measurement No3:

The L_{Aeq} recorded at this location of 42 dB (A) is within the day time limit of 55 dB (A) as stipulated in the waste licence. The L_{AFmax} was caused by a tractor working in a nearby field. The main contributors to the noise levels in the vicinity of the noise monitoring location were the tractor and other farm activities plus some noise from works being carried out on the entrance road to the site was audible.

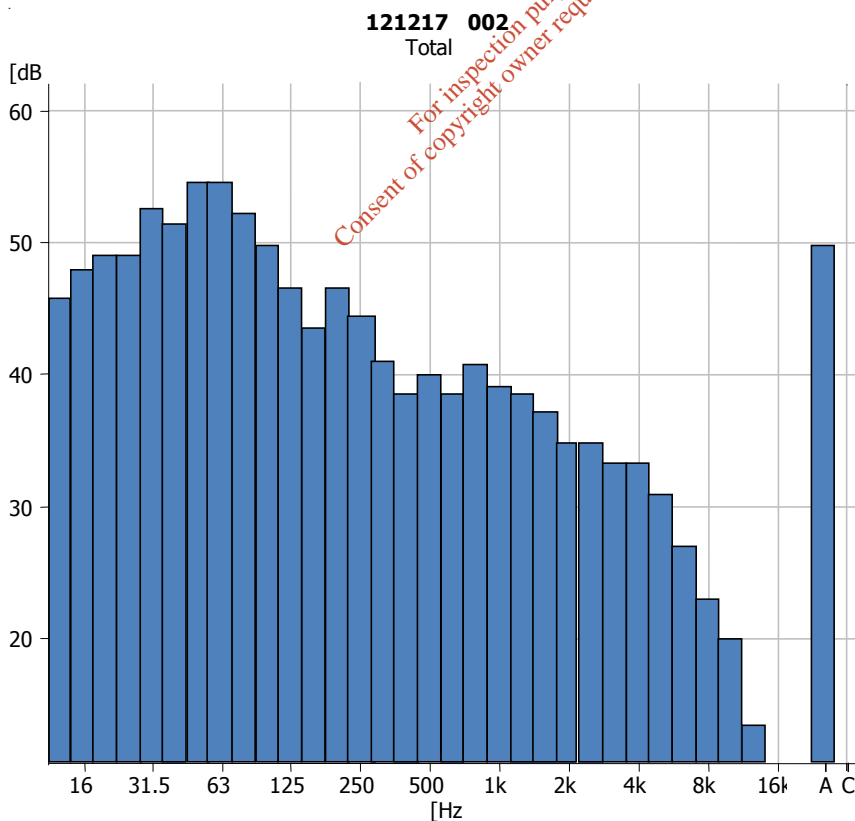
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Appendix 1
Tonal Graph

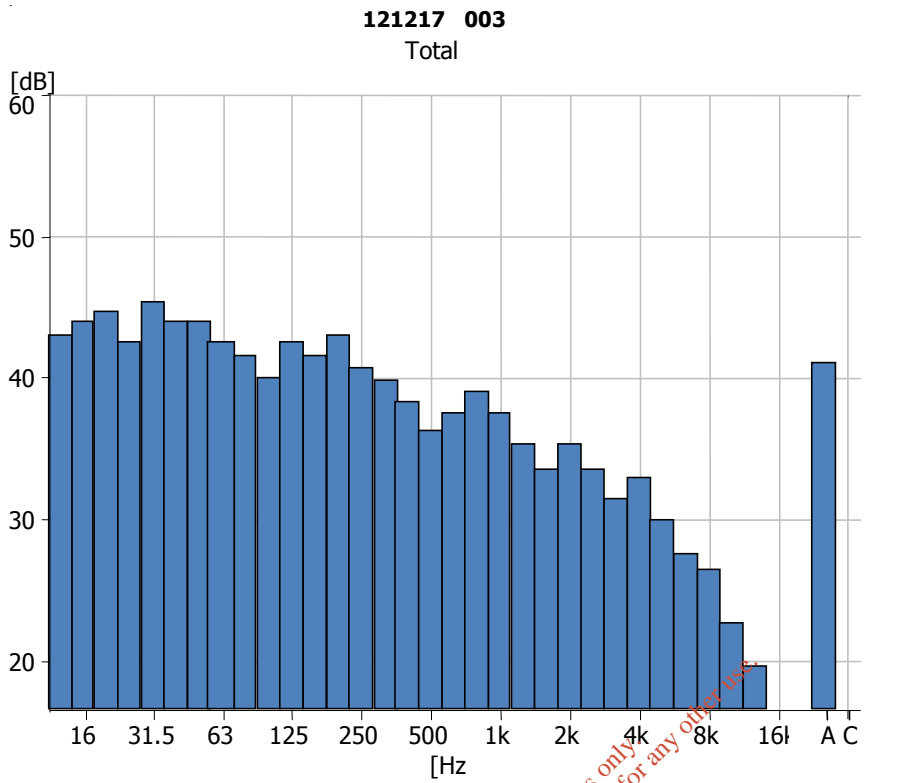
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Sensitive Receptor NSL Daytime- Tonal Graph No.1



Sensitive Receptor NSL Daytime - Tonal Graph No.2



Sensitive Receptor NSL Daytime - Tonal Graph No.3

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Appendix 2
Location Map

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