

APPENDIX 7

Noise Survey

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TECHNICAL REPORT

**BASELINE NOISE REPORT FOR PROPOSED GREEN
WASTE COMPOSTING FACILITY**

FOR

Kings Tree Services Limited



Report prepared by: **Brian Fitzpatrick, BEng (Hon) AMIOA**
Our reference: **BF/04/2169NR02**
Date: **22 October 2004**


EXECUTIVE SUMMARY

AWN Consulting Limited has been commissioned by O'Callaghan Moran & Associates to carry out a baseline noise survey related to the proposed Green Waste Composting Facility on lands at Ballynagran, Co Wicklow.

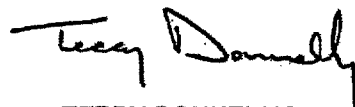
An environmental noise survey was conducted in order to quantify the existing noise environment in the vicinity of the lands of interest. The survey was conducted generally in accordance with ISO 1996: 1982: *Acoustics – Description and measurement of environmental noise*.

Ambient noise levels on site and in the vicinity are dominated by traffic noise. Noise levels are typical of what would be expected in a rural location of this nature close to a major road.

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1.0 INTRODUCTION

AWN Consulting Limited has been commissioned by O'Callaghan Moran & Associates to carry out a baseline noise survey related to the proposed Green Waste Composting Facility development on lands at Ballynagran Co Wicklow.

The lands in question are within the Wicklow County Council area. The site is bounded to the north by open farmland, to the east by a worked out sand and gravel quarry and further east the N11. To the south a worked out sand and gravel quarry and lands which form part of Ballynagran landfill facility.

The baseline noise monitoring that has been carried out to date is reviewed in the following sections.

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2.0 SURVEY DETAILS

An environmental noise survey was conducted in order to quantify the existing noise environment in the vicinity of the lands of interest. The survey was conducted generally in accordance with ISO 1996: 1982: *Acoustics – Description and measurement of environmental noise*. Specific details are set out below.

2.1 Choice of Measurement Locations

Measurements were conducted at two locations on or in the vicinity of the proposed site. Figure 1, at the rear of this document, details the approximate locations of the measurement positions.

N1 is located at the northern tip of the proposed facility; access to this location is via a private laneway off the N11;

N2 is located at the southern tip of the proposed facility access to this location is via a private laneway off the N11;

2.2 Survey Periods

Measurements were conducted during a daytime period as follows

14:24hrs to 15:12hrs on 27/08/04:

The weather throughout the measurement period was dry with light winds from the southwest.

Note that the composting facility does not operate during the majority of night time hours. Therefore it is assumed that there are no significant emissions of noise from the transfer station during night time periods.

2.3 Personnel and Instrumentation

Brian Fitzpatrick (AWN) conducted the noise level measurements during the survey period.

The measurements were performed using a Brüel & Kjær Type 2250 Sound Level Meter. Before and after the survey the measurement apparatus was check calibrated using a Brüel & Kjær Type 4231 Sound Level Calibrator.

2.4 Procedure

Sample periods were of 10 minutes duration. The results were saved to the instrument memory for later analysis where appropriate. Survey personnel noted all primary noise sources contributing to noise build-up.

2.5 Measurement Parameters

The survey results are presented in terms of the following five parameters:

L_{Aeq} is the equivalent continuous sound level. It is a type of average and is used to describe a fluctuating noise in terms of a single noise level over the sample period.

L_{Amax} is the instantaneous maximum sound level measured during the sample period.

L_{Amin} is the instantaneous minimum sound level measured during the sample period.

L_{A10} is the sound level that is exceeded for 10% of the sample period. It is typically used as a descriptor for traffic noise.

L_{A90} is the sound level that is exceeded for 90% of the sample period. It is typically used as a descriptor for background noise.

The "A" suffix denotes the fact that the sound levels have been "A-weighted" in order to account for the non-linear nature of human hearing.

All sound levels in this report are expressed in terms of decibels (dB) relative to 2×10^{-5} Pa.

2.6 Results

2.6.1 Location 1

The results of measurements taken at Location 1 are summarised in Table 1.

Time	Measured Noise Levels (dB re. 2×10^{-5} Pa)					Comments
	L _{Aeq}	L _{Amax}	L _{Amin}	L _{A10}	L _{A90}	
14:36 – 14:46	45	65	35	48	38	Dominant Source of Noise was Traffic on Nearby N11
15:01 – 15:12	45	66	57	47	40	

Table 1 Summary of results for Location 1

Daytime noise levels at this monitoring location are dominated by traffic movements along the N11. Other sources of noise noted at this location were, wind generated noise in local foliage and birdsong. Noise levels were of the order of 45dB L_{Aeq} and 38 to 40dB L_{A90}.

No significant sources of vibration were observed.

2.6.2 Location 2

The results of measurements taken at Location 2 are summarised in Table 2.

Time	Measured Noise Levels (dB re. 2×10^{-5} Pa)					Comments
	L _{Aeq}	L _{Amax}	L _{Amin}	L _{A10}	L _{A90}	
14:24 – 14:34	45	58	37	47	42	Dominant Source of Noise was Traffic on Nearby N11
14:49 – 14:59	47	62	39	50	42	

Table 2 Summary of results for Location 2

Daytime noise levels at this monitoring location are dominated by traffic movements along the N11. Other sources of noise noted at this location, wind generated noise in local foliage and birdsong. Noise levels were in the range of 45 to 47dB L_{Aeq} and of the order of 42dB L_{A90}.

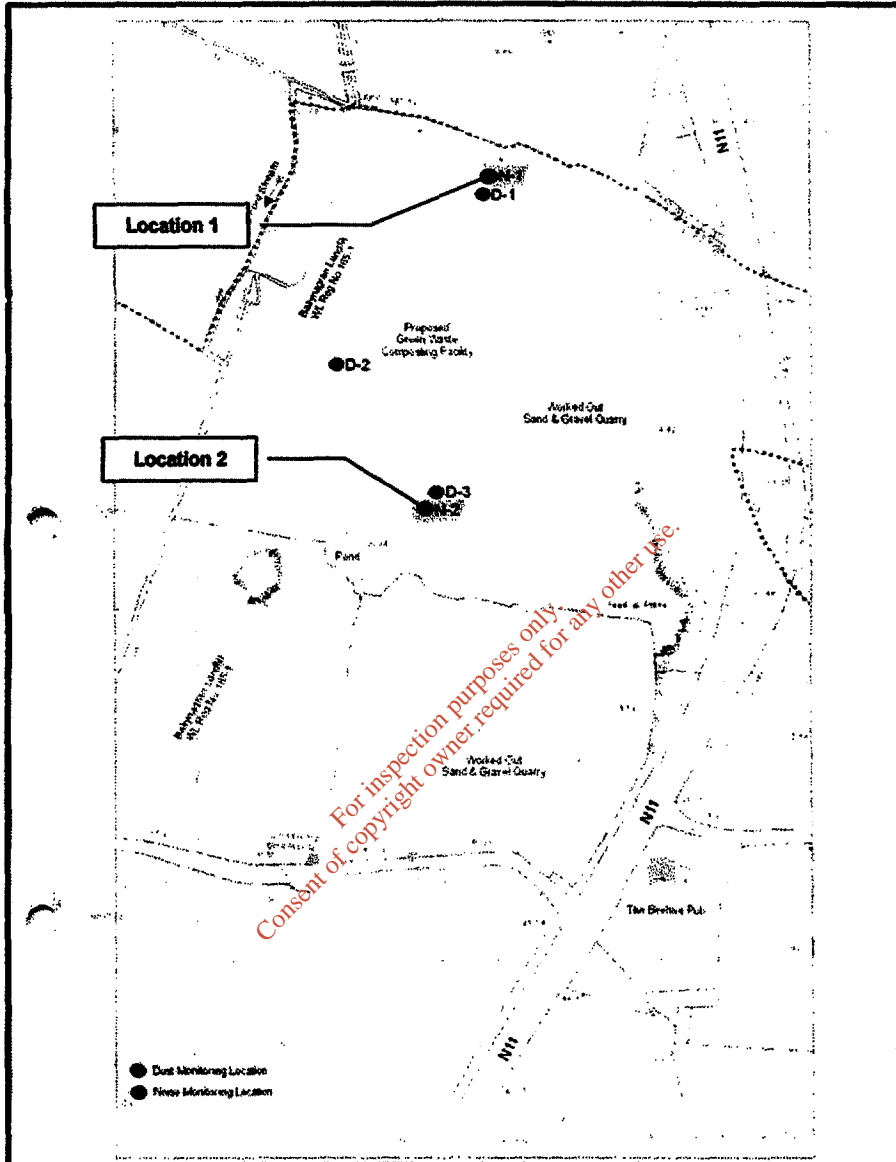
No significant sources of vibration were observed.

2.6.3 Summary


Ambient noise levels on and in the vicinity of the site are dominated by traffic noise. Noise levels are typical of what would be expected in a rural location of this nature close to a major road.

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**FIGURE 1
NOISE MEASUREMENT LOCATIONS**



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 <p>O'Callaghan Moran & Associates Granary House, Rutland Street, Cork, Ireland. Tel: (021) 4321521 Fax: (021) 4321522 email: ocm@oag.ie</p>	<p>CLIENT King Tree Services Ltd</p>	<p>Details O.S. Licence Agreement Number AR 0036702</p>	<p>FIG No 6.1</p>
	<p>TITLE Monitoring Locations</p>	<p>Ordnance Survey Ireland, Government of Ireland.</p>	<p>Scale NTS</p>

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