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UNITS OF MEASUREMENTS AND ACOUSTIC TERMINOLOGY.

Sound:
Sound is a succession of small, rapid variations in the pressure of the air. It is characterized by its amplitude or level, measured in decibels and its frequency, measured in Hertz (Hz).

Sound Power Level:
The sound pressure level (SPL) is the parameter used to measure the relative "strength" of the sound. SPL is expressed in decibels (dB), which relate the amplitude of the sound pressure to a reference sound pressure. This reference corresponds to the threshold of hearing i.e. the minimum audible sound pressure at 1000 Hz is 20 uPa. The decibel scale ranges from the threshold of hearing at 0 dB to above the threshold of pain at approximately 140 dB.

Any measurement of noise must take account of the human aspect. A correct noise measurement will be an objective; repeatable measurement made in such a way as to reproduce the subjective perception of the sound by the human ear. This perception depends on both the amplitude and frequency of the sound. Frequency weighting (e.g. A, B, and C) has been defined to take account of this phenomenon. Most noise measurement are made using the A- weighting curve and are expressed in dB(A).

The dB(A) is used widely and has proved to be the best single measurement of the likely annoyance of most types of noise. This weighting characteristic provides good correlation with noise perception with its maximum lying in the frequency most sensitive (from 2 to 5 kHz) to the human ear.

A-weighted sound pressure level.
The level of the A-weighted sound pressure is calculated as follows:
$L_{pA} = 20 \log_{10} (P_A/P_o)$, where

L_{pA}	is the A-weighted sound pressure level (in dB);
P_A	is the root mean square sound pressure determined using frequency weighting A (in Pa);
P_o	Is the reference sound pressure (i.e. 20 uPa)

The A-weighted sound pressure level will give an indication of the loudness and degree of speech interference from, noise.

Equivalent continuous A-weighted sound pressure level.
The value of the A-weighted sound pressure level of a continuous, steady sound that, within a specified time interval T, has the same mean square sound pressure as a sound under consideration whose level varies with time. It is calculated as follows:

$$L_{A\,eq,T} = 10\ Log_{10} \left[\frac{1}{T} \int_0^T \frac{P_A^{\,2}(t)}{P_o^{\,2}}\, dt \right]$$

The equivalent continuous A-weighted sound pressure level L_{Aeq} is the recommended measurement for the description of environmental noise.

Maximum sound pressure level.
The highest value of the A-weighted sound pressure level that occurs during a given event or time period.

Percentile level.
The A-weighted sound pressure level that is exceeded for *N* % of the time interval. Symbol $L_{AN,T}$;

L_{A1}, 15 min; is the A-weighted level of noise exceeded for 1 % of 15 minutes.
L_{A10}, 15 min; is the A-weighted level of noise exceeded for 10 % of 15 minutes.
L_{A95}, 15 min; is the A-weighted level of noise exceeded for 95 % of 15 minutes.

Reference time interval:
The specified time interval over which an equivalent continuous A-weighted sound pressure level is referred.

Frequency:
The frequency of the sound characterises its pitch. Frequency is a measure of the number of complete vibrations occurring per second and is measured in hertz (Hz). Most noises/sounds encountered in everyday life are characterised not by a single frequency but by a whole range of frequencies occurring simultaneously. The audible range covers frequencies between approximately 20 Hz and 20 kHz. Noises with their energy concentrated in a narrow band of the frequency spectrum can be especially intrusive, particularly if the frequency is high. Since the human ear is most sensitive to higher pitched sounds, a noise of relatively high level with high-frequency components predominating can give rise to nuisance complaints.

1/3 Octave Frequency Analysis:
1/3 octave frequency analysis is used to identify the frequency components of noise. Analysis of the frequency content of noise can be used for evaluating the background noise environment and for identifying noise sources. It separates the noise into 30 third-octave filters and 30 overlapping octave filters with centre frequencies from 20Hz to 20kHz.

Ambient noise:
The tonal sound in a given situation at a given time usually composed of sound from many sources near and far.

Site noise:
That component of the ambient noise in the neighbourhood of a site that originates from the site.

Noise Sensitive Premises:
Any premises outside the site used as a residential dwelling.

Noise Survey Monitoring Instrumentation

- One Larson Davis 870 Precision Integrating Sound Level Analyser with 900B Pre-amplifier and 1/2" Condenser Microphone Type 2541.
- One Larson Davis 812 Precision Integrating Sound Level Meter with 900B Pre-amplifier and 1/2" Condenser Microphone Type 2541
- Wind Shields Type (a) Larson Davis 2120 Windscreen
- Calibration Type: Larson Davis Precision Acoustic Calibrator Model CA250.
- Young Wind Monitor Model 05103.

Equipment Can

All instrumentation was calibrated before and after the measurement survey. Additional field acoustic calibration checks were performed on the microphones during the course of the survey. Calibration set-point was 114 dB, with calibration undertaken using a handheld Larson Davis Precision Acoustic Calibrator Model CA200.

BASELINE NOISE SURVEY

MONAGHAN BASELINE NOISE SURVEY

Instrument Model: Larson Davis 870 Integrated noise and meteorological sound level meter
Serial Number: A0319
Location: Site One **Interval Report**
Northings: 343997 **Eastings** 343997
Land Use: *Grassland, improved rough grazing*
Anthropogenic Noise Sources: *Road Traffic, poultry farm*
Environmental Noise Sources: *Wind, nature sounds*

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA	Wind Avg m/s	Wind Max m/s	Wind Dir
05-Jun-01	18:15:00	15:00.0	46.6	61.7	48.6	40.8	40.3	1.6	4	WNW
05-Jun-01	18:30:00	15:00.0	50.8	66.9	62	41.3	40.8	1.8	4.5	W
05-Jun-01	18:45:00	15:00.0	44.2	59.2	46.2	41	40.5	1.3	3	W
05-Jun-01	19:00:00	15:00.0	45.5	62.6	47.6	41.2	40.7	1.8	4.7	WSW
05-Jun-01	19:15:00	15:00.0	43.7	58.1	45.8	40.5	40.1	1.5	3.2	SSW
05-Jun-01	19:30:00	15:00.0	45.1	56.7	47.7	40.7	40.2	1.8	4.8	W
05-Jun-01	19:45:00	15:00.0	M.8	W.6	47.5	40.1	39.3	1.6	3.5	W
05-Jun-01	20:00:00	15:00.0	42.8	54.7	45.7	39.2	39	1	2.8	WSW
05-Jun-01	20:15:00	15:00.0	50.6	89.7	47	39.8	39.1	1.1	3.1	WSW
05-Jun-01	20:30:00	15:00.0	44.1	57.6	48.7	39.5	39	1.8	4.9	WSW
05-Jun-01	20:45:00	15:00.0	57.2	84	47	39.1	38.5	1.3	3.5	W
05-Jun-01	21:00:00	15:00.0	41.7	58.2	43.8	38.2	38	1.5	3.7	SSW
05-Jun-01	21:15:00	15:00.0	42.5	59.5	45.2	37.1	35.8	1.5	3.6	WSW
05-Jun-01	21:30:00	15:00.0	39.7	55.6	41.7	34.7	34.1	1.1	3.2	W
05-Jun-01	21:45:00	15:00.0	39.8	53.7	41.8	35.7	35	1.3	3.1	WSW
05-Jun-01	22:00:00	15:00.0	42.8	56	45.6	37.1	36.2	1.8	3.5	SW
05-Jun-01	22:15:00	15:00.0	41.5	56	43.1	36.7	35.2	1.5	3.8	WSW
05-Jun-01	22:30:00	15:00.0	40.2	52.8	41.8	38.1	37.6	1.3	2.6	SW
05-Jun-01	22:45:00	15:00.0	40.5	55.8	41.7	37.8	37.3	1.3	5.2	SSW
05-Jun-01	23:00:00	15:00.0	38.7	50.7	41	37.7	37.2	1.3	2.8	SW
05-Jun-01	23:15:00	15:00.0	41	54.7	42.7	38.1	37.6	1.3	3.7	SW
05-Jun-01	23:30:00	15:00.0	41.2	57.1	42.7	38.1	37.6	1.3	2.8	SW
05-Jun-01	23:45:00	15:00.0	40.2	50.5	41.8	38.1	37.7	1.3	2.8	SW
06-Jun-01	00:00:00	15:00.0	40.7	53.7	42.2	37.8	37.3	1.3	9.1	SSW
06-Jun-01	00:15:00	15:00.0	42	56.2	44.2	38.2	37.8	1.6	33	SW
06-Jun-01	00:30:00	15:00.0	42.5	67.2	45	38.3	38.1	1.8	3.7	SW
06-Jun-01	00:45:00	15:00.0	41.8	57.7	44	38.3	38.1	1.6	3.5	SW
06-Jun-01	01:00:00	15:00.0	43.5	62.3	46.3	35.2	34.6	2	4	WSW
06-Jun-01	01:15:00	15:00.0	44.2	59.2	47.3	36.1	35.2	2.1	4	SW
06-Jun-01	01:30:00	15:00.0	43.7	61.7	46.2	35.5	34.7	2	4.7	WSW
06-Jun-01	01:45:00	15:00.0	44.7	63.7	47.7	36.1	35.1	2	4.7	SW
06-Jun-01	02:00:00	15:00.0	42.7	64	45.5	36.8	35.6	1.8	4.7	WSW
06-Jun-01	02:15:00	15:00.0	41.6	56.7	44.5	34.7	34.2	1.6	4	WSW
06-Jun-01	02:30:00	15:00.0	46.1	67.2	48.8	37.8	36.7	2.2	4.7	WSW
06-Jun-01	02:45:00	15:00.0	46.8	64.5	49.7	36.6	35.2	2.3	5.2	WSW
06-Jun-01	03:00:00	15:00.0	46.3	65.2	48.8	38.3	37.5	2 2	4.7	SW
06-Jun-01	03:15:00	15:00.0	44.2	81.7	46.5	38.2	37.2	1.6	4	SW
06-Jun-01	03:30:00	15:00.0	44.2	68.4	46.1	37.2	36.2	1.8	6 2	WSW
06-Jun-01	03:45:00	1coo.o	42.7	56.7	45.5	37.1	36.1	1.1	2.8	W
06-Jun-01	04:00:00	15:00.0	39.6	52.6	41.1	36.3	35.6	0.9	2.2	WSW

06-Jun-01	04:15:00	15:00.0	41.8	57	44.2	37.3	36.3	1	3.2	WNW
06-Jun-01	04:30:00	15:00.0	40.6	51.5	42.8	37.7	37.2	0.8	2.5	W
06-Jun-01	04:45:00	15:00.0	43	58.8	46.2	36.6	35.6	1	3.2	NW
06-Jun-01	05:00:00	15:00.0	42.6	58.2	45.7	37.2	36.5	0.8	2.8	NNW
06-Jun-01	05:15:00	15:00.0	39.7	62.2	41.6	36.7	36.2	0.5	1.6	NNW
06-Jun-01	05:30:00	15:00.0	40.9	66.4	42.1	37.1	36.1	0.2	1.6	N
06-Jun-01	05:45:00	15:00.0	39.3	48.3	41	37.3	37.1	0.2	1.1	WNW
06-Jun-01	06:00:00	15:00.0	48.8	66	53.2	38.2	37.7	0.4	1.3	NW
06-Jun-01	06:15:00	15:00.0	47.8	70.7	50.8	39.2	38.7	0.1	1.1	WNW
06-Jun-01	06:30:00	15:00.0	47.8	83.1	51.2	39.3	38.8	0.1	1.1	NNE
06-Jun-01	06:45:00	15:00.0	46.7	65.5	50.5	38	37.5	0.1	1	WNW
06-Jun-01	07:00:00	15:00.0	42.1	61.8	44.7	38	37.5	0.5	1.6	S
		MAX	***57.2***	***84***	***53.2***	***41.3***	***40.8***	***2.3***	***5.2***	
		MIN	***39.3***	***48.3***	***41***	***34.7***	***34.1***	***0.1***	***1***	
		Average	***43.7***	***59.9***	***45.6***	***38.0***	***37.3***	***1.3***	***3.3***	

DAYTIME Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA	Wind Avg m/s	Wind Max m/s	Wind Dir
05-Jun-01	18:15:00	15:00.0	46.6	61.7	48.6	40.8	40.3	1.6	4	WNW
05-Jun-01	18:30:00	15:00.0	50.8	66.9	52	41.3	40.8	1.8	4.5	W
05-Jun-01	18:45:00	15:00.0	44.2	59.2	46.2	41	40.5	1.3	3	W
05-Jun-01	19:00:00	15:00.0	45.5	62.6	47.6	41.2	40.7	1.8	4.7	WSW
05-Jun-01	19:15:00	15:00.0	43.7	58.1	45.8	40.5	40.1	1.5	3.2	SSW
05-Jun-01	19:30:00	15:00.0	45.1	58.7	47.7	40.7	40.2	1.8	4	SW
05-Jun-01	19:45:00	15:00.0	44.6	56.5	47.5	40.1	39.3	1.6	3.5	W
		MAX	***50.8***	***66.9***	***52***	***41.3***	***40.8***	***1.8***	***4.7***	
		MIN	***43.7***	***56.5***	***45.8***	***40.1***	***39.3***	***1.3***	***3***	
		Average	***46.1***	***60.8***	***48.1***	***40.8***	***40.2***	***1.6***	***3.8***	

NIGHT-TIME Date	Time	Durati	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA	Wind Avg m/s	Wind Max m/s	
05-Jun-01	20:15:00	15:00.0	50.6	69.7	47	38.6	39.1	1.1	3.1	WSW
05-Jun-01	20:30:00	15:00.0	44.1	57.6	46.7	39.5	39	1.6	4.9	WSW
05-Jun-01	20:45:00	15:00.0	67.2	84	47	39.1	38.5	1.3	3.5	W
05-Jun-01	21:00:00	15:00.0	41.7	58.2	43.8	38.2	38	1.5	3.7	SSW
05-Jun-01	21:15:00	15:00.0	42.5	59.5	45.2	37.1	35.6	1.5	3.6	WSW
05-Jun-01	21:30:00	15:00.0	98.7	55.8	41.7	34.7	34.1	1.1	3.2	W
05-Jun-01	21:45:00	15:00.0	39.8	53.7	41.8	95.7	35	1.3	3.1	WSW
05-Jun-01	22:00:00	15:00.0	42.8	56	45.6	37.1	36.2	1.8	3.5	SW
05-Jun-01	22:15:00	15:00.0	41.5	59	43.1	38.7	35.2	1.5	3.6	WSW
05-Jun-01	22:30:00	15:00.0	40.2	52.8	41.8	38.1	37.6	1.3	2.6	SW
05-Jun-01	22:45:00	15:00.0	40.5	55.8	41.7	37.8	37.3	1.3	3.2	SSW
05-Jun-01	23:00:00	15:00.0	39.7	50.7	41	37.7	37.2	1.3	2.6	SW
05-Jun-01	23:15:00	15:00.0	41	54.7	42.7	38.1	37.6	1.3	3.7	SW

05-Jun-01	23:30:00	15:00.0	41.2	57.1	42.7	38.1	37.8	1.3	2.8	SW
05-Jun-01	23:45:00	15m.o	40.2	50.5	41.8	38.1	37.7	1.3	2.6	SW
06-Jun-01	00:00:00	15:00.0	40.7	53.7	42.2	37.8	37.3	1.3	3.1	SSW
06-Jun-01	00:15:00	15:00.0	42	58.2	44.2	38.2	37.8	7.6	33	SW
06-Jun-01	00:30:00	15:00.0	42.5	57.2	45	38.3	38.1	1.8	3.7	SW
06-Jun-01	00:45:00	15:00.0	41.8	57.7	44	38.3	38.1	1.6	3.5	SW
06-Jun-01	01:00:00	15:00.0	43.5	62.3	46.3	35.2	34.6	2	4	WSW
06-Jun-01	01:15:00	15:00.0	44.2	59.2	473	38.1	38.2	2.1	4	SW
06-Jun-01	01:30:00	15:00.0	43.7	61.7	46.2	35.5	34.7	2	4.7	WSW
06-Jun-01	01:45:00	15:00.0	44.7	63.7	47.7	36.1	35.1	2	4.7	SW
06-Jun-01	02:00:00	15:00.0	42.7	64	45.5	S.8	35.6	1.8	4.7	WSW
06-Jun-01	02:15:00	15:00.0	41.6	58.7	44.5	34.7	34.2	1.6	4	WSW
06-Jun-01	02:30:00	15:00.0	46.1	67.2	48.8	87.8	88.7	2 2	4.7	WSW
06-Jun-01	02:45:00	15:00.0	46.8	64.5	49.7	36.6	35.2	2 3	5.2	WSW
06-Jun-01	03:00:00	15:00.0	46.3	65.2	48.8	38.3	37.6	2 2	4.7	SW
06-Jun-01	03:15:00	15:00.0	u.2	61.7	46.5	38.2	37.2	1.8	4	SW
06-Jun-01	03:30:00	15:00.0	44.2	68.4	46.1	37.2	36.2	1.8	5.2	WSW
06-Jun-01	03:45:00	15:00.0	42.7	58.7	46.6	37.1	Sal	1.1	2.8	W
06-Jun-01	04:00:00	15:00.0	39.6	52.8	41.1	36.3	35.6	0.9	2.2	WSW
06-Jun-01	04:15:00	15:00.0	41.8	57	44.2	37.3		1	8.2	WNW
06-Jun-01	04:30:00	15:00.0	40.6	51.5	42.6	w.7	37.2	0.8	2.5	W
06-Jun-01	04:45:00	15:00.0	43	56.8	46.2	36.6	35.6	1	5.2	NW
06-Jun-01	05:00:00	15:00.0	42.6	58.2	45.7	37.2	36.5	0.8	2.8	NNW
06-Jun-01	05:15:00	15:00.0	39.7	52.2	41.6	36.7	36.2	0.5	1.6	NNW
06-Jun-01	05:30:00	15:00.0	40.8	66.4	42.1	37.1	36.1	0.2	1.6	N
06-Jun-01	05:45:00	15:00.0	39.3	48.3	41	37.3	37.1	0.2	1.1	WNW
06-Jun-01	06:00:00	15:00.0	48.8	66	53.2	38.2	37.7	0.4	1.3	NW
06-Jun-01	06:15:00	15:00.0	47.8	70.7	50.8	39.2	38.7	0.1	1.1	WNW
06-Jun-01	06:30:00	15:00.0	47.3	68.1	51.2	39.3	38.8	0.1	1.1	NNE
06-Jun-01	06:45:00	15:00.0	46.7	65.5	50.5	38	37.5	0.1	1	WNW
06-Jun-01	07:00:00	15:00.0	42.1	61.8	44.7	38	37.5	0.5	1.8	S
		MAX	*57.2*	*84*	*53.2*	*39.6*	*39.1*	*2.3*	*5.2*	
		MIN	*39.3*	*48.3*	*41*	*34.7*	*34.1*	*0.1*	*1*	
		Average	*43.4*	*59.9*	*45.2*	*37.5*	*36.7*	*1.3*	*3.2*	

MONAGHAN BASELINE NOISE SURVEY

Instrument Model: Larson Davis 812 Integrated noise sound level meter
Serial Number: A0609
Location: Site Two **Interval Report**
Northings: 344212 **Eastings:** 263888
Land Use: *Rough grazing, scrub*
Anthropogenic Noise Sources: *Distant Road Traffic*
Environmental Noise Sources: *Wind, nature sounds*

Date	Time		Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA
05-Jun-01	19:15:00	15:00.0	40.2	61.6	42.7	35.5	34.8
05-Jun-01	19:30:00	15:00.0	44.1	54.3	47.7	37.8	36.7
05-Jun-01	19:45:00	15:00.0	42.6	59.1	44.8	37.1	35.8
05-Jun-01	20:00:00	15:00.0	42	53.8	44.6	37.7	37
05-Jun-01	20:15:00	15:00.0	42.1	58.8	44.6	37.5	36.6
05-Jun-01	20:30:00	15:00.0	40.2	62.7	42.7	35.3	34.3
05-Jun-01	20:45:00	15:00.0	99.7	52.5	42.3	35.3	34.2
05-Jun-01	21:00:00	15:00.0	88.7	64.6	42.7	33.3	32.7
05-Jun-01	21:15:00	15:00.0	40.2	55.8	42.6	35	34.2
05-Jun-01	21:30:00	15:00.0	39.7	56.1	42.7	32.3	31.6
05-Jun-01	21:45:00	15:00.0	48	70.2	40.8	91.3	30.5
05-Jun-01	22:00:00	15:00.0	31.6	48.7	33.7	27.8	27.1
05-Jun-01	22:15:00	15:00.0	31.5	45.2	34	28.1	27.6
05-Jun-01	22:30:00	15:00.0	30	49.7	32	26	25.3
05-Jun-01	22:45:00	15:00.0	27.6	45	29.1	25.5	25.1
05-Jun-01	23:00:00	15:00.0	29.8	45.1	32.1	26.1	25.8
05-Jun-01	23:15:00	15:00.0	27.6	42.1	29.3	25.5	25.1
05-Jun-01	23:30:00	15:00.0	28.6	44.1	30.1	26.6	26.1
05-Jun-01	23:45:00	15:00.0	28.6	44.2	30	26.8	26.3
06-Jun-01	00:00:00	15:00.0	27.6	w.7	29.6	26.8	25.3
06-Jun-01	00:15:00	15:00.0	28.5	40.2	30.1	26.6	26.1
06-Jun-01	00:30:00	15:00.0	30.3	44.8	32.2	26.8	26.3
06-Jun-01	00:45:00	15:00.0	29.3	47.3	m.6	27.1	26.6
06-Jun-01	01:00:00	15:00.0	28.5	41.2	29.8	26.5	26.1
06-Jun-01	01:15:00	15:00.0	28.3	45.7	30	26.1	25.6
06-Jun-01	01:30:00	15:00.0	28.3	35.7	29.8	26.5	26.1
06-Jun-01	01:45:00	15:00.0	28.3	41.8	29.6	26.6	26.1
06-Jun-01	02:00:00	15:00.0	29.8	51.2	30.8	27.1	26.5
06-Jun-01	02:15:00	15:00.0	30	42.7	31.6	28	27.3
06-Jun-01	02:30:00	15:00.0	29.1	42.7	31	27	26.5
06-Jun-01	02:45:00	15:00.0	29.6	40.6	31.6	27.3	27
06-Jun-01	03:00:00	15:00.0	28.6	48.2	29.8	28.6	28.3
06-Jun-01	03:15:00	15:00.0	27.5	39.5	28.8	25.6	25.3
06-Jun-01	03:30:00	15:00.0	30.8	41.3	32.3	28.6	28.3
06-Jun-01	03:45:00	15:00.0	31.3	45.2	33.5	27.6	27.1
06-Jun-01	04:00:00	15:00.0	m.7	49.7	39.6	30.6	29.1
06-Jun-01	04:15:00	15:00.0	41.6	a	44.6	35	34.1
06-Jun-01	04:30:00	15:00.0	41	m.7	42.7	33	32.1
06-Jun-01	04:45:00	15:00.0	37.2	49.8	40.3	32	31.1
06-Jun-01	05:00:00	15:00.0	40.2	54.6	44	32.6	91.6

06-Jun-01	05:15:00	15:00.0	39.6	52	43.3	91.5	30.5
06-Jun-01	05:30:00	15:00.0	41.6	56.7	45.6	31.5	30.3
06-Jun-01	05:45:00	15:00.0	39.1	51.6	42.7	31.1	30
06-Jun-01	06:00:00	15:00.0	39.7	54.8	43.1	30.3	29.3
06-Jun-01	06:15:00	15:00.0	37.7	49	41.7	29.5	2R8
06-Jun-01	06:30:00	15:00.0	38.5	50.8	42.7'	29.3	28.3
06-Jun-01	06:45:00	1800.0	44.5	60.5	47.7	29	28.1
06-Jun-01	07:00:00	15:00.0	44.7	58.7	49.3	30.1	29.1
06-Jun-01	07:15:00	15:00.0	42.5	57.3	44.2	30	29
06-Jun-01	07:30:00	15:00.0	38.2	65.8	40.8	30	29.3
06-Jun-01	07:45:00	15:00.0	35.6	49.7	39.2	27.8	27.1
06-Jun-01	08:00:00	15:00.0	36.8	55.2	40.6	27.6	26.8
06-Jun-01	08:15:00	15:00.0	43.2	76	43.3	26.8	28
06-Jun-01	09:00:00	01:00:00	36.3	57.6	39.3	27.3	26.6
06-Jun-01	10:00:00	01:00:00	39.1	55.5	42.7'	30	26.6
06-Jun-01	11:00:00	01:00:00	46.5	72.2	49	36.7	35.5
06-Jun-01	12:00:00	01:00:00	43.1	68.9	46.1	35.2	34.6
06-Jun-01	13:00:00	01:00:00	39.6	70.5	41.2	w.3	35.7
06-Jun-01	14:00:00	01:00:00	38.5	55.2	40.3	34.7	34.2
06-Jun-01	15:00:00	01:00:00	42.7	69.2	45	37.3	37
06-Jun-01	16:00:00	01:00:00	40.8	66.2	43.5	32.3	31.1
06-Jun-01	17:00:00	01:00:00	36.2	58.7	38.7	90.1	29.3
		MAX	46	76	49.3	37.8	37
		MIN	27.5	35.7	28.8	25.8	26.1
		A———	36.2	52.6	38.5	30.4	29.6

DAYTIME

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA
05-Jun-01	19:15:00	15:00.0	36.2	51.5	42.7	35.5	34.6
05-Jun-01	19:30:00	15:00.0	44.1	64.3	47.7	37.8	36.7
05-Jun-01	19:45:00	15:00.0	42.6	59.1	44.8	37.1	35.8
06-Jun-01	08:15:00	1500.0	43.2	76	43.3	26.8	28
06-Jun-01	09:00:00	01:00:00	36.3	57.6	39.3	27.3	26.6
06-Jun-01	10:00:00	01:00:00	39.1	55.5	42.7	30	28.6
06-Jun-01	11:00:00	01:00:00	46.5	72.2	49	36.7	35.5
06-Jun-01	12:00:00	01:00:00	43.1	68.9	46.1	96.2	34.6
06-Jun-01	13:00:00	01:00:00	39.6	70.5	41.2	36.3	35.7
06-Jun-01	14:00:00	01:00:00	38.5	55.2	40.3	34.7	34.2
06-Jun-01	15:00:00	01:00:00	42.7	69.2	45	37.3	97
06-Jun-01	16:00:00	01:00:00	40.8	66.2	43.5	32.3	31.1
06-Jun-01	17:00:00	01:00:00	36.2	58.7	38.7	90.1	29.3
		MAX	46.5	76	49	37.8	37
		MIN	36.2	51.5	38.7	27.3	26.6
		Average	41.04	62.8	43.5	33.6	32.8

NIGHT-TIME

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA
05-Jun-01	20:15:00	15:00.0	42.1	58.8	44.6	37.5	36.6
05-Jun-01	20:30:00	15:00.0	40.2	62.7	42.7	35.3	34.3
05-Jun-01	20:45:00	15:00.0	39.7	52.5	42.3	35.3	34.2
05-Jun-01	21:00:00	15:00.0	88.7	54.6	42.7	33.9	32.7
05-Jun-01	21:15:00	15:00.0	40.2	55.8	42.6	35	34.2
05-Jun-01	21:30:00	15:00.0	vv.7	56.1	42.7	32.9	31.5
05-Jun-01	21:45:00	15:00.0	48	70.2	46.8	31.3	30.5
05-Jun-01	22:00:00	15:00.0	31.6	48.7	33.7	27.6	27.1
05-Jun-01	22:15:00	15:00.0	31.5	45.2	34	28.1	27.6
05-Jun-01	22:30:00	15:00.0	30	49.7	32	26	26.3
05-Jun-01	22:45:00	15:00.0	27.8	46	29.1	z.5	25.1
05-Jun-01	23:00:00	15:00.0	29.8	45.1	32.1	26.1	25.8
05-Jun-01	23:15:00	15:00.0	27.8	42.1	29.3	25.5	25.1
05-Jun-01	23:30:00	15:00.0	28.8	44.1	30.1	26.6	26.1
05-Jun-01	23:45:00	15:00.0	28.6	u.2	30	26.8	26.3
06-Jun-01	00:00:00	15:00.0	27.8	35.7	28.5	25.8	25.3
06-Jun-01	00:15:00	1500.0	28.5	40.2	30.1	26.6	26.1
06-Jun-01	00:30:00	15:00.0	30.3	44.8	32.2	26.8	26.3
06-Jun-01	00:45:00	15:00.0	29.3	47.3	30.8	27.1	26.6
06-Jun-01	01:00:00	15:00.0	28.5	41.2	28.8	S.6	26.1
06-Jun-01	01:15:00	15:00.0	28.3	45.7	30	28.1	25.6
06-Jun-01	01:30:00	15:00.0	28.3	35.7	29.8	26.5	26.1
06-Jun-01	01:45:00	15:00.0	26.3	41.8	29.6	26.6	26.1
06-Jun-01	02:00:00	15:00.0	29.8	51.2	30.8	27.1	26.5
06-Jun-01	02:15:00	15:00.0	30	43.7	31.6	28	27.3
06-Jun-01	02:30:00	15:00.0	29.1	42.7	31	27	26.5
06-Jun-01	02:45:00	15:00.0	29.8	40.5	31.6	27.3	27
06-Jun-01	03:00:00	15:00.0	28.6	4a2	29.8	26.8	26.3
06-Jun-01	03:15:00	15:00.0	27.6	39.5	28.8	S.8	25.3
06-Jun-01	03:30:00	15:00.0	30.8	41.3	32.3	26.8	26.3
06-Jun-01	03:45:00	15:00.0	31.3	45.2	33.5	27.6	27.1
06-Jun-01	04:00:00	15:00.0	36.7	M.7	39.8	34.8	29.6
06-Jun-01	04:15:00	15:00.0	41.6	57	44.6	35	W.I
06-Jun-01	04:30:00	15:00.0	41	60.7	42.7	33	32.1
06-Jun-01	04:45:00	15:00.0	37.2	49.8	40.3	32	31.1
06-Jun-01	05:00:00	15:00.0	40.2	54.6	44	32.6	31.6
06-Jun-01	05:15:00	15:00.0	39.6	52		31.5	30.5
06-Jun-01	05:30:00	15:00.0	41.6	56.7	45.6	31.5	30.3
06-Jun-01	05:45:00	15:00.0	39.1	51.5	42.7	31.1	30
06-Jun-01	06:00:00	15:00.0	39.7	54.8	43.2	30.3	29.3
06-Jun-01	06:15:00	15:00.0	37.7	49	41.7	29.5	28.6
06-Jun-01	06:30:00	15:00.0	38.6	50.8	42.7	29.3	28.3
06-Jun-01	06:45:00	15:00.0	44.5	60.5	47.7	29	28.1
06-Jun-01	07:00:00	15:00.0	44.7	58.7	49.3	30.1	29.1
06-Jun-01	07:15:00	15:00.0	42.5	57.3	44.2	30	29
06-Jun-01	07:30:00	15:00.0	38.2	55.8	40.8	30	29.3
06-Jun-01	07:45:00	15:00.0	35.6	49.7	39.2	27.8	27.1
		MAX	***48***	***70.2***	***49.3***	***37.5***	***36.6***
		MIN	***27.5***	***35.7***	***28.8***	***25.5***	***25.1***
		Average	***34.8***	***49.7***	***37.1***	***29.4***	***28.7***

MONAGHAN BASELINE NOISE SURVEY

Instrument Model: Larson Davis 870 Integrated noise and meteorological sound level meter
Serial Number: A0319
Location: Site Three **Interval Report**
Northings: 343992 **Eastings** 263795
Land Use: *Rough pasture, grazing*
Anthropogenic Noise Sources: *Poultry farm, Road Traffic*
Environmental Noise Sources: *Wind, nature sounds*

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L96 dBA	Wind Avg m/s	Wind Max m/s	Wind Dir
06-Jun-01	16:45:00	15:00.0	46.2	59.2	50.3	35.5	M.5	1.8	3.8	NW
06-Jun-01	17:00:00	15:00.0	45.2	60.8	48.8	34.7	33.8	1.6	4	WNW
06-Jun-01	17:15:00	15:00.0	53.8	72.2	55.7	34.7	34	2	7.2	NW
06-Jun-01	17:30:00	15:00.0	56.7	72.2	60.7	39.3	36.8	2.8	7.7	NNW
06-Jun-01	17:45:00	15:00.0	45.7	61.5	49.7	34.6	34.1	1.8	4.2	NW
06-Jun-01	18:00:00	15:00.0	47.6	63.8	51.8	35.2	34.2	2	4.2	WNW
06-Jun-01	18:15:00	15:00.0	46.5	63.2	50.6	34.3	33.6	2	4.4	NNW
06-Jun-01	18:30:00	15:00.0	44.1	58.8	48	34.8	34.2	1.3	3.7	NW
06-Jun-01	18:45:00	15:00.0	47.6	64.9	51	35.5	34.7	2	4.9	WNW
06-Jun-01	19:00:00	15:00.0	50.1	68	53.8	37.1	35.8	2	6.4	NNW
06-Jun-01	19:15:00	15:00.0	49.6	67	53.7	37.2	35.6	2 3	4.5	NW
06-Jun-01	19:30:00	15:00.0	44.6	64	48.5	34.1	33.3	1.6	4.2	WNW
06-Jun-01	19:45:00	15:00.0	43.8	58.7	48.8	33.1	32.5	1.3	3	NNW
06-Jun-01	20:00:00	15:00.0	52.7	73.2	52.1	33.5	33	1.1	3	NW
06-Jun-01	20:15:00	15:00.0	38.8	59.2	41.5	34	33.3	0.6	2	WNW
06-Jun-01	20:30:00	16:00.0	64.5	84.5	62	33.8	33.2	0.2	1.1	SSW
06-Jun-01	20:45:00	15:00.0	50.2	84.4	44.7	34.5	34.1	0.4	1.1	WSW
06-Jun-01	21:00:00	15:00.0	40.6	69.2	52.7	34	33.2	1.6	5.5	WSW
06-Jun-01	21:15:00	15:00.0	39.1	59.7	40.7	32.3	32.1	0.9	2 2	WSW
06-Jun-01	21:30:00	15:00.0	38.7	50.2	39.6	32.2	31.8	0.8	2 2	WNW
06-Jun-01	21:45:00	15:00.0	38.7	53.2	42.2	31	30.3	1	2.3	NW
06-Jun-01	22:00:00	15:00.0	35.8	52.7	37.3	32.2	32	1	2 2	NW
06-Jun-01	22:15:00	15:00.0	34.3	50.8	35.7	31.3	31	1	2 3	W
06-Jun-01	22:30:00	16:00.0	392	47.2	34.6	31.1	30.5	0.5	1.8	WSW
06-Jun-01	22:45:00	15:00.0	34.1	51.3	33.6	30.1	29.6	0.8	1.6	WNW
06-Jun-01	23:00:00	15:00.0	32.6	48	55.7	30.3	30.1	0.2	1.8	W
06-Jun-01	23:15:00	15:00.0	37	55	37.3	31.8	31.3	1	2 2	SW
06-Jun-01	23:30:00	15:00.0	35.7	49.2	372	32.2	31.6	1.1	27	SW
06-Jun-01	23:45:00	15:00.0	32.7	42.5	34.2	30.8	30.3	0.5	1.5	S
07-Jun-01	00:00:00	15:00.0	m.5	50.1	34.8	31	30.5	0.8	27	W
07-Jun-01	00:15:00	15:00.0	33.6	50.2	35.1	31	30.5	1	2 2	WSW
07-Jun-01	00:30:00	16:00.0	80.8	93.4	39.2	31.8	31.3	f.3	27	SW
07-Jun-01	00:45:00	15:00.0	63.5	93.7	37.7		32.2	1.3	2.3	SSW
07-Jun-01	01:00:00	15:00.0	69.9	W.6	40.7	92.2	32	1.3	2.7	3
07-Jun-01	01:15:00	15:00.0	70.9	09.4	36.6	31.6	31.3	1	22	S
07-Jun-01	01:30:00	15:00.0	73.7	93.2	52.1	30.3	29.6	1	1.8	SSW
07-Jun-01	01:45:00	15:00.0	78.2	93.2	69.9	31.1	30.6	0.6	1.8	S
07-Jun-01	02:00:00	15:00.0	77	95.5	73.2	32.6	Si.a	1	2 2	SSW

07-Jun-01	02:15:00	15:00.0	75	93.4	61.3	31.1	30.5	0.6	3 2	SW
07-Jun-01	02:30:00	15:00.0	64.9	93.2	34.7	30.1	29.6	0.8	2.7	W
07-Jun-01	02:45:00	15:00.0	71.5	93.4	42.6	31.3	31	1	2.2	SSW
07-Jun-01	03:00:00	15:00.0	71.7	93.4	M.6	30	35.2	0.9	2.6	SW
07-Jun-01	03:15:00	15:00.0	722	93.2	45.1	35.7	35	1	2 1	SSW
07-Jun-01	03:30:00	15:00.0	67	93.4	45	35.6	35	1.1	2.8	SW
07-Jun-01	03:45:00	15:00.0		93.4	46.1	34.1	33.3	1.1	3.2	SSW
07-Jun-01	04:00:00	15:00.0	m.7	93.4	45.1	a.2	32.7	0.2	1.3	SSW
07-Jun-01	04:15:00	15:00.0	71	93.4	48.2	34.2	39.8	0.e	2 1	SSW
07-Jun-01	04:30:00	15:00.0	69.4	93.4	452	34	33.3	1.3	3.6	SW
07-Jun-01	04:45:00	15:00.0	43	60.2	46.5	85.2	34.5	1.6	3.7	SSW
07-Jun-01	05:00:00	15:00.0	42.8	63.2	45.3	33.8	33.2	1.3	3.7	SW
07-Jun-01	05:15:00	15:00.0	36.2	54.7	37.1	33	32.3	0.9	2.6	W
07-Jun-01	05:30:00	15:00.0	40.5	59.5	41.3	s.5	33.1	1.1	2.8	SSW
07-Jun-01	05:45:00	15:00.0	38.5	52.3	41.5	33.3	32.7	1.1	2.5	SSW
07-Jun-01	06:00:00	15:00.0	39.2	56.7	41.8	34	33.3	1.1	3.1	SSW
07-Jun-01	06:15:00	15:00.0	44.2	59	48.2	34.6	33.8	1	3	SW
07-Jun-01	06:30:00	15:00.0	46.3	81.7	49.6	39	38.2	1.1	3.1	WNW
07-Jun-01	06:45:00	15:00.0	45.6	62.1	49.7	35.5	34.5	1.5	4	WNW
07-Jun-01	07:00:00	1500.0	50.1	66.2	54.5	36.2	34.8	2 2	4.9	WSW
07-Jun-01	07:15:00	15:00.0	48.7	64.2	53.2	35.7	34.7	1.8	4	WNW
07-Jun-01	07:30:00	15:00.0	49	79.5	50.7	34.7	33.6	2	5	WNW
07-Jun-01	07:45:00	15:00.0	49.1	64.9	52.8	38.1	36.6	2.1	5.5	WSW
07-Jun-01	08:00:00	15:00.0	49.2	86.6	63.1	38.5	37	2.2	4.5	WNW
07-Jun-01	08:15:00	15:00.0	4Q.2	63.1	53	39.1	37.3	2 2	4.4	NW
07-Jun-01	08:30:00	15:00.0	48.1	64.7	51.7	37.7	36.2	2 1	4.6	N
07-Jun-01	08:45:00	15:00.0	48.2	65.2	51.8	36.7	97.7	2 1	5	NW
07-Jun-01	09:00:00	15:00.0	49.1	65.5	52.8	38.8	37.7	2.2	5.2	NW
07-Jun-01	09:15:00	15:00.0	54	69.2	57.7	43.1	41.6	2.8	6.5	WNW
07-Jun-01	09:30:00	15:00.0	53.6	69.7	57.2	43	41.1	2.7	6	WNW
07-Jun-01	09:45:00	15:00.0	54.7	71	58.6	42.8	412	3	6	WNW
07-Jun-01	10:00:00	15:00.0	55.6	70	59.1	44.8	43.2	3.1	6.7	NNW
07-Jun-01	10:15:00	15:00.0	47.0	64	51.7	38.7	38.1	1.8	4.2	W
07-Jun-01	10:30:00	15:00.0	58.1	73.5	58.8	382	37.6	2.7	8.8	NNW
07-Jun-01	10:45:00	15:00.0	59.2	72.9	63.6	46.3	44.2	3.7	7.7	WNW
07-Jun-01	11:00:00	15:00.0	56.2	73.5	58.3	42	40	2.7	8.1	WNW
07-Jun-01	11:15:00	15:00.0	58.7	71	60.6	44	42.2	3.2	7.9	WNW
07-Jun-01	11:30:00	15:00.0	55.6	71.5	59.1	42.2	40.7	2 7	7.5	NNW
07-Jun-01	11:45:00	15:00.0	55.2	73.7	58.8	37.5	35.7	2 7	10	NNW
07-Jun-01	12:00:00	15:00.0	54.2	72.2	57.3	38.2	36.7	2 7	8.1	NW
07-Jun-01	12:15:00	15:00.0	58.2	74	62.5	42	40.2	3.3	8.6	WNW
07-Jun-01	12:30:00	15:00.0	52	71.7	55.3	40.2	38.7	2.3	6	NW
07-Jun-01	12:45:00	15:00.0	51.1	67.7	55.3	37.6	35.8	2.2	6.2	NW
07-Jun-01	13:00:00	15:00.0	56.5	712	60.3	41.2		3.1	7.2	NNW
07-Jun-01	13:15:00	15:00.0	55.5	71.5	59.7	43.8	42.2	a	6.5	NW
07-Jun-01	13:30:00	15:00.0	57.2	73	61.5	37.5	35.5	3	8.4	NW
07-Jun-01	13:45:00	15:00.0	68.8	73	67.6	37.7	36.1	2.6	6.2	NNE
07-Jun-01	14:00:00	15:00.0	56.5	71.2	60.6	42.2	40.2	3.2	7.2	N
07-Jun-01	14:15:00	15:00.0	58.2	73.2	62.5	43.7	41.2	3.5	6.1	NNW
07-Jun-01	14:30:00	15:00.0	57.6	73.2	60.6	44.7	42.5	2.7	7.4	N
07-Jun-01	14:45:00	15:00.0	60.6	77.2	62	58.2	58.1	3	6.7	N
07-Jun-01	15:00:00	15:00.0	59.5	72.7	62	51.5	48	3.1	6.9	NNW
07-Jun-01	15:15:00	15:00.0	58.7	71.7	e1.2	48.2	45.2	3.1	8	N

07-Jun-01	15:30:00	15:00.0	59	72.7	63.2	46	44.2	3.6	7.9	NNW
07-Jun-01	15:45:00	15:00.0	58.6	72.2	62.7	47.8	46.1	3.6	8.3	N
07-Jun-01	16:00:00	15:00.0	60.5	72.2	63.7	55.7	55.2	3.7	7.9	N
07-Jun-01	16:15:00	15:00.0	60.8	73	64.4	54.8	52.8	3.8	8.9	N
		MAX	*77*	*93.7*	*73.2*	*58.2*	*58.1*	*3.8*	*10*	
		MIN	*32.6*	*42.5*	*33.7*	*30.1*	*29.6*	*0.2*	*1.1*	
		Average	*52.2*	*69.7*	*50.8*	*37.2*	*36.1*	*1.8*	*4.5*	

DAYTIME

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA	Wind Avg m/s	Wind Max m/s	Wind Dir
06-Jun-01	16:45:00	15:00.0	46.2	59.2	50.3	35.5	34.5	1.8	3.8	NNW
06-Jun-01	17:00:00	15:00.0	45.2	60.8	48.8	34.7	33.8	1.6	4	NW
06-Jun-01	17:15:00	15:00.0	53.8	72.2	55.7	34.7	34	2	72	WNW
06-Jun-01	17:30:00	15:00.0	56.7	72.2	60.7	39.3	36.8	28	7.7	NW
06-Jun-01	17:45:00	15:00.0	45.7	61.5	49.7	34.6	34.1	1.8	4.2	NNW
06-Jun-01	18:00:00	15:00.0	47.6	63.8	51.9	35.2	34.2	2	4.2	NW
06-Jun-01	18:15:00	15:00.0	46.5	63.2	50.6	34.3	33.6	2	4.4	WNW
06-Jun-01	18:30:00	15:00.0	44.1	58.8	48	34.8	34.2	1.3	3.7	NNW
06-Jun-01	18:45:00	15:00.0	47.6	64.9	51	35.5	34.7	2	4.9	NW
06-Jun-01	19:00:00	15:00.0	50.1	68	53.8	37.1	35.8	2	5.4	WNW
06-Jun-01	19:15:00	15:00.0	49.6	67	53.7	37.2	35.6	2.3	4.5	NNW
06-Jun-01	19:30:00	15:00.0	44.6	64	48.5	34.1	33.3	1.6	4.2	NW
06-Jun-01	19:45:00	15:00.0	43.8	58.7	48.6	33.1	32.5	1.3	3	WNW
06-Jun-01	20:00:00	15:00.0	52.7	73.2	52.1	33.5	33	1.1	3	NNW
07-Jun-01	08:00:00	15:00.0	49.2	65.5	53.1	38.5	37	2 2	4.5	WNW
07-Jun-01	08:15:00	15:00.0	49.2	63.1	53	39.1	37.3	2 2	4 4	NW
07-Jun-01	08:30:00	15:00.0	48.1	64.7	61.7	37.7	98.2	2.1	4.5	N
07-Jun-01	08:45:00	15:00.0	48.2	B5.2	51.6	38.7	37.7	2.1	5	NW
07-Jun-01	09:00:00	15:00.0	49.1	65.5	52.8	38.8	37.7	2.2	5.2	NW
07-Jun-01	09:15:00	15:00.0	54	69.2	67.7	43.1	41.0	2.8	5.5	WNW
07-Jun-01	09:30:00	15:00.0	53.6	69.7	57.2	43	41.1	2.7	6	WNW
07-Jun-01	09:45:00	15:00.0	54.7	71	58.6	42.6	41.2	3	6	WNW
07-Jun-01	10:00:00	15:00.0	55.6	70	59.1	44.9	43.2	3.1	6.7	NNW
07-Jun-01	10:15:00	15:00.0	47.9	64	51.7	38.7	38.1	1.8	4.2	W
07-Jun-01	10:30:00	15:00.0	56.1	73.6	58.8	88.2	37.5	2 7	8.8	NNW
07-Jun-01	10:45:00	15:00.0	59.2	72.9	63.6	46.3	44.2	3.7	7.7	WNW
07-Jun-01	11:00:00	15:00.0	55.2	73.5	58.3	42	40	2 7	8.1	WNW
07-Jun-01	11:15:00	15:00.0	56.7	71	60.6	44	42.2	3.2	7.9	WNW
07-Jun-01	11:30:00	15:00.0	55.6	71.5	59.1	42.2	40.7	27	7.5	NNW
07-Jun-01	11:45:00	15:00.0	55.2	73.7	58.8	37.5	35.7	2.7	10	NNW
07-Jun-01	12:00:00	15:00.0	54.2	72.2	57.3	38.2	36.7	2.7	8.1	NW
07-Jun-01	12:15:00	15:00.0	6a2	74	62.5	42	40.2	3.3	8.6	WNW
07-Jun-01	12:30:00	15:00.0	52	71.7	55.3	40.2	3a7	2.3	6	NW
07-Jun-01	12:45:00	15:00.0	51.1	67.7	55.3	W.6	36.6	2.2	52	NW
07-Jun-01	13:00:00	15:00.0	56.5	71.2	80.3	41.2	38.6	3.1	7.2	NNW
07-Jun-01	13:15:00	15:00.0	55.5	71.6	59.7	43.8	42.2	3	8.5	NW
07-Jun-01	13:30:00	15:00.0	57.2	73	61.5	37.5	35.5	3	64	NW
07-Jun-01	13:45:00	15:00.0	53.8	73	57.5	37.7	36.1	2.6	8.2	NNE
07-Jun-01	14:00:00	15:00.0	W.5	715	60.6	42.2	40.2	3.2	7.2	N
07-Jun-01	14:15:00	15:00.0	58.2	73.2	62.5	43.7	412	3.5	8.1	NNW

07-Jun-01	14:30:00	15:00.0	57.6	73.2	60.6	44.7	42.5	2.7	7.4	N
07-Jun-01	14:45:00	15:00.0	60.6	77.2	62	58.2	58.1	3	6.7	N
07-Jun-01	15:00:00	15:00.0	59.5	72.7	62	51.5	48	3.1	6.9	NNW
07-Jun-01	15:15:00	15:00.0	58.7	71.7	61.2	48.2	45.2	3.1	8	N
07-Jun-01	15:30:00	15:00.0	59	72.7	63.2	46	44.2	3.6	7.9	NNW
07-Jun-01	15:45:00	15:00.0	58.6	72.2	62.7	47.8	46.1	3.6	8.3	N
07-Jun-01	16:00:00	15:00.0	60.5	72.2	63.7	55.7	55.2	3.7	7.9	N
07-Jun-01	16:15:00	15:00.0	60.8	73	64.4	54.8	52.8	3.8	8.9	NNW
		MAX	***60.8***	***77.2***	***64.4***	***58.2***	***58.1***	***3.8***	***10***	
		MIN	***43.8***	***58.6***	***48***	***33.1***	***32.5***	***1.1***	***3***	
		Average	***53.1***	***69.0***	***56.7***	***41.0***	***39.6***	***2.6***	***6.3***	

NIGHT-TIME

Date	Time	Duration	Leq dBA	Lmax dBA	L10 dBA	L90 dBA	L95 dBA	Wind Avg m/s	Wind Max m/s	Wind Dir
06-Jun-01	20:15:00	15:00.0	38.8	55.2	41.5	34	33.3	0.5	2	WNW
06-Jun-01	20:30:00	15:00.0	54.2	64.5	62	33.8	33.2	0.2	1.1	SSW
06-Jun-01	20:45:00	15:00.0	m.7	64.4	44.7	34.5	34.1	0.4	1.1	WSW
06-Jun-01	21:00:00	15:00.0	48.8	m.2	52.7	34	33.2	1.6	5.5	WSW
06-Jun-01	21:15:00	15:00.0	39.1	59.7	40.7	92.3	32.1	0.9	2 2	WSW
06-Jun-01	21:30:00	1cw.o	36.7	50.2	39.6	S.2	31.8	0.8	2 2	WNW
06-Jun-01	21:45:00	15:00.0	38.7	53.2	42.2	31	M.3	1	2 3	NW
06-Jun-01	22:00:00	15:00.0	35.8	52.7	37.3	522	32	1	2 2	NW
06-Jun-01	22:15:00	15:00.0	34.3	50.8	35.7	31.3	31	1	2.3	W
06-Jun-01	22:30:00	15:00.0	33.2	47.2	34.6	31.1	30.5	0.1	1.6	WSW
06-Jun-01	22:45:00	15:00.0	34.1	51.3	33.8	80.1	28.8	0.0	1.6	WNW
06-Jun-01	23:00:00	15:00.0	32.6	48	33.7	30.3	30.1	0.2	1.8	W
06-Jun-01	23:15:00	15:00.0	37	55	37.3	31.6	31.3	1	2 2	SW
06-Jun-01	23:30:00	15:00.0	35.7	49.2	37.2	32.2	31.6	1.1	2.7	SW
06-Jun-01	23:45:00	15:00.0	33.7	42.5	34.2	30.8	30.3	0.5	1.5	S
07-Jun-01	00:00:00	15:00.0	33.5	50.1	34.8	31	30.6	0.8	2.7	W
07-Jun-01	00:15:00	15:00.0	33.6	50.2	35.1	31	30.5	[illegible]	2 2	WSW
07-Jun-01	00:30:00	15:00.0	60.8	w.4	39.2	31.8	31.3	1.3	2.7	SW
07-Jun-01	00:45:00	15:00.0	63.5	W.7	37.7	32.8	32.2	1.3	2.3	SSW
07-Jun-01	01:00:00	15:00.0	69.9	93.5	40.7	32.2	32	1.3	2.7	S
07-Jun-01	01:15:00	15:00.0	70.9	93.4	36.6	31.6	31.3	1	2.2	S
07-Jun-01	01:30:00	15:00.0	73.7	93.2	52.1	30.3	29.6	1	1.8	SSW
07-Jun-01	01:45:00	15:00.0	76.2	93.2	W.9	31.1	30.6	0.8	1.8	S
07-Jun-01	02:00:00	15:00.0	77	93.5	73.2	32.6	31.6	1	2 2	SSW
07-Jun-01	02:15:00	15:00.0	75	93.4	61.3	31.1	30.5	0.6	32	SW
07-Jun-01	02:30:00	15:00.0	64.9	93.2	34.7	30.1	29.6	0.8	2.7	W
07-Jun-01	02:45:00	15:00.0	71.6	1.4	42.8	31.3	31	1	2 2	SSW
07-Jun-01	03:00:00	15:00.0	71.7	93.4	48.6	36	36.2	0.9	2.6	SW
07-Jun-01	03:15:00	1500.0	72.2	93.2	45.1	35.7	35	1	2 1	SSW
07-Jun-01	03:30:00	15:00.0	67	93.4	45	35.6	35	1.1	2 8	SW
07-Jun-01	03:45:00	15:00.0	59.8	93.4	48.1	34.1	33.3	1.1	3.2	SSW
07-Jun-01	04:00:00	15:00.0	m.7	93.4	45.1	332	32.7	0.2	1.3	SSW
07-Jun-01	04:15:00	15:00.0	71	93.4	48.2	34.2	33.6	0.0	21	SSW
07-Jun-01	04:30:00	15:00.0	69.4	93.4	45.2	34	33.3	1.3	S8	SW
07-Jun-01	04:45:00	15:00.0	43	80.2	46.5	86.2	34.5	1.6	3.7	SSW
07-Jun-01	05:00:00	15:00.0	42.8	63.2	45.3	33.8	33.2	1.3	3.7	SW

07-Jun-01	05:15:00	15:00.0	38.2	54.7	37.6	33	32.3	0.9	2.6	W
07-Jun-01	05:30:00	15:00.0	40.5	59.5	41.3	33.5	33.1	1.1	2.8	SSW
07-Jun-01	05:45:00	15:00.0	38.5	52.3	41.5	33.3	32.7	1.1	2.5	SSW
07-Jun-01	06:00:00	15:00.0	39.2	56.7	41.8	34	33.3	1.1	3.1	SSW
07-Jun-01	06:15:00	15:00.0	44.2	59	48.2	34.6	33.8	1	3	SW
07-Jun-01	06:30:00	15:00.0	46.3	61.7	49.6	39	38.2	1.1	3.1	WNW
07-Jun-01	06:45:00	15:00.0	45.6	62.1	49.7	35.5	34.5	1.5	4	WNW
07-Jun-01	07:00:00	15:00.0	50.1	66.2	54.5	36.2	34.8	2.2	4.9	WSW
07-Jun-01	07:15:00	15:00.0	48.7	64.2	53.2	35.7	34.7	1.8	4	WNW
07-Jun-01	07:30:00	15:00.0	49	79.5	50.7	34.7	33.6	2	5	WNW
07-Jun-01	07:45:00	15:00.0	49.1	64.9	52.8	38.1	36.6	2.1	5.5	WSW
		MAX	***77***	***93.7***	***73.2***	***39***	***38.2***	***2.2***	***5.5***	
		MIN	***32.6***	***42.5***	***33.7***	***30.1***	***29.6***	***0.2***	***1.1***	
		Average	***51.3***	***70.2***	***45.0***	***33.2***	***32.6***	***1.0***	***2.7***	

Community Noise Levels

MONAGHAN BASELINE NOISE SURVEY
Instrument Model: Larson Davis 812 sound level meter
Serial Number: A0571
Location: Mobile Noise Measurements
Anthropogenic Noise Sources: *Road Traffic*
Environmental Noise Sources: *Wind, nature sounds*

Site 1	Leq	Lmax	L10	L90
07-Jun-01	[illegible]	61.2	59	49.5
07-Jun-01	65	71.5	68.7	60.1
07-Jun-01	52.6	71.5	53.8	38.7
07-Jun-01	50.5	64.2	51	40.2
Max	***65***	***71.5***	***68.7***	***60.1***
Min	***50.5***	***61.2***	***51***	***38.7***
Average	***56.4***	***66.9***	***58.7***	***47.9***

Site 2	Leq	Lmax	L10	L90
07-Jun-01	53.2	72.2	55.5	41.7
07-Jun-01	70	83.9	71.2	42.8
07-Jun-01	59.6	74.5	59.2	38.7
07-Jun-01	40.6	45.6	42.7	37.8
Max	***70***	***83.9***	***71.2***	***42.8***
Min	***40.6***	***45.6***	***42.7***	***37.8***
Average	***55.7***	***67.6***	***57.1***	***40.3***

Site 3	Leq	Lmax	L10	L90
07-Jun-01	42.7	59.1	43.8	38.7
07-Jun-01	41.3	48.8	44	38
07-Jun-01	48.8	54.7	50.7	46.3
Max	***48.8***	***59.1***	***50.7***	***46.3***
Min	***41.3***	***48.8***	***43.8***	***38***
Average	***44.6***	***54.1***	***46.6***	***41.5***

Site 4	Leq	Lmax	L10	L90
07-Jun-01	42.2	52.2	45.3	37.5
07-Jun-01	40.7	50.8	44.3	36.7
07-Jun-01	39.1	51.3	41.6	34
Max	***42.2***	***52.2***	***45.3***	***37.5***
Min	***39.1***	***50.8***	***41.6***	***34***
Average	***40.7***	***51.5***	***43.6***	***35.9***

Site 5	Leq	Lmax	L10	L90
07-Jun-01	41.3	49.1	44.1	37.1
07-Jun-01	68.7	87.4	59.5	37.8
07-Jun-01	40.6	53	44.8	33.8
Max	***68.7***	***87.4***	***59.5***	***37.8***
Min	***40.6***	***49.1***	***44.1***	***33.8***
Average	***52.0***	***65.2***	***50.4***	***36.1***

MONAGHAN BASELINE NOISE SURVEY
Instrument Model: Larson Davis 812 sound level meter
Serial Number: A0571
Location: Mobile Noise Measurements
Anthropogenic Noise Sources: *Road Traffic*
Environmental Noise Sources: *Wind, nature sounds*

Site 6	Leq	Lmax	L10	L90
07-Jun-01	40.2	45.7	43.2	35.2

Site 7	Leq	Lmax	L10	L90
07-Jun-01	43.8	58.2	44.6	37.5
07-Jun-01	52.6	70.2	53.2	44
07-Jun-01	57.2	74.9	57.1	36.7
07-Jun-01	61.7	72.4	66.5	47.2
07-Jun-01	64.7	81.5	65.2	46.2
Max	***64.7***	***81.5***	***66.5***	***47.2***
Min	***43.8***	***58.2***	***44.6***	***36.7***
Average	***55.5***	***71.0***	***56.8***	***42.2***

Site	Leq	Lmax	L10	L90
07-Jun-01	47.3	53.8	49.6	43.7
07-Jun-01	45.2	50.5	48	40.6
Max	***47.3***	***53.8***	***49.6***	***43.7***
Min	***45.2***	***50.5***	***48***	***40.6***
Average	***46.3***	***52.2***	***48.8***	***42.2***

Site 9	Leq	Lmax	L10	L90
07-Jun-01	44.6	63.5	44.3	35.6
07-Jun-01	37.6	44.7	39.7	35.1
Max	***44.6***	***63.5***	***44.3***	***35.6***
Min	***37.6***	***44.7***	***39.7***	***35.1***
Average	***41.1***	***54.1***	***42.0***	***35.4***

Site 10	Leq	Lmax	L10	L90
07-Jun-01	50.7	68	50.7	37.2
07-Jun-01	42	46.1	44	39.2
Max	***50.7***	***68***	***50.7***	***39.2***
Min	***42***	***46.1***	***44***	***37.2***
Average	***46.4***	***57.1***	***47.4***	***38.2***

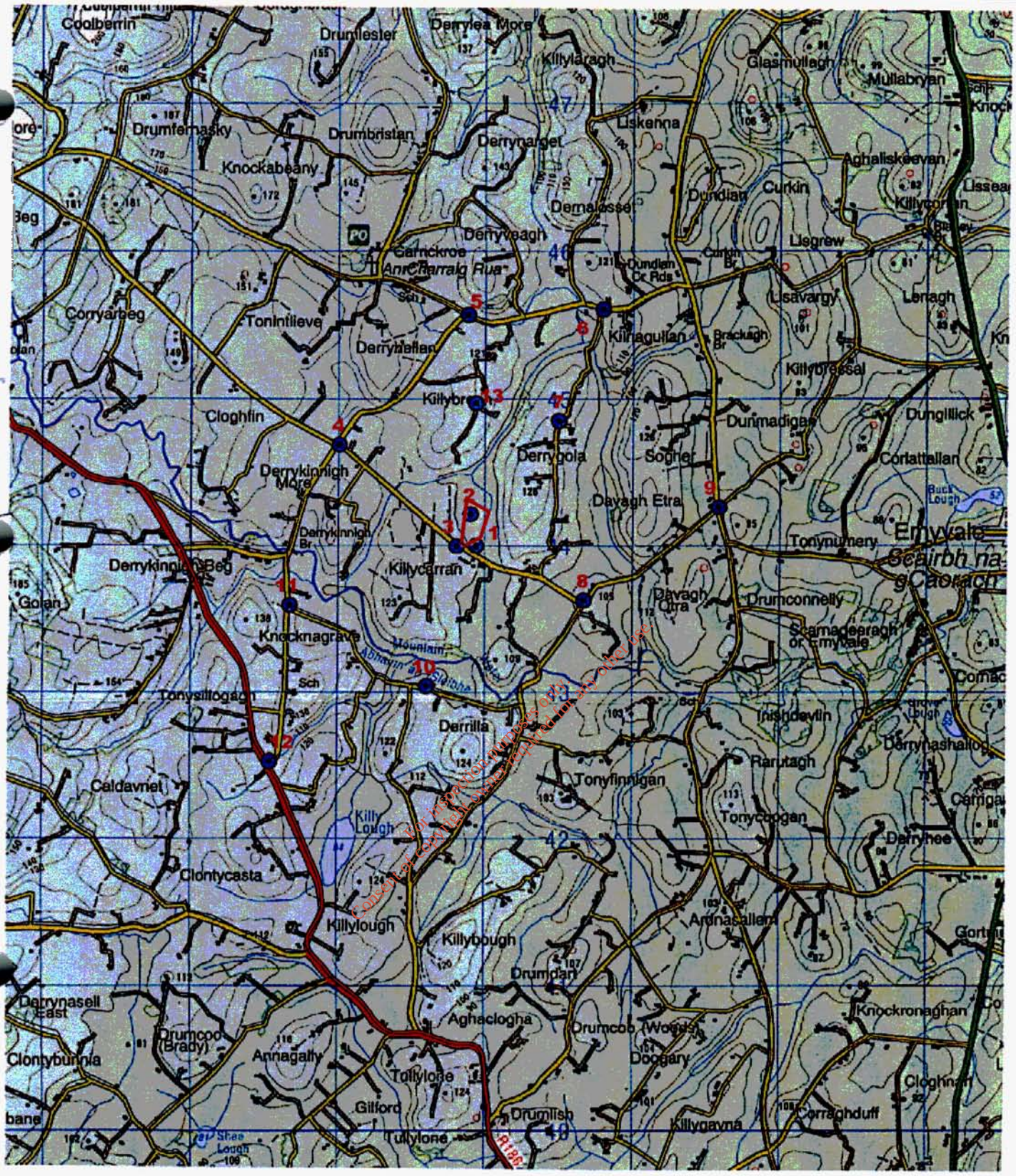

Figure 5.12 Neighbourhood Noise Monitoring Locations

APPENDIX 6
LANDSCAPE AND VISUAL ASSESSMENT

6.1 The Draft guidelines for Planning Authorities on Landscape and Landscape Assessment

The *Draft guidelines for Planning Authorities on Landscape and Landscape Assessment* published by the Dept. of Environment and Local Government in June 2000 are used as the basis for the landscape assessment.

The guidelines recommend the classification of landscapes according to the following framework:

1. Landscape Character;
2. Landscape Values; and
3. Landscape Sensitivity

The above aspects of the landscape should result in the production of an overall assessment of the study area comprising of the following:

- A map, or series of character maps and photographic and written descriptions which represent landscape character areas;
- Overlay of values; and
- Overlay of sensitivity

6.2 Landscape Character

The process of establishing landscape character areas corresponds to three stages:

- Identification of physical units
- Identification of visual units
- Image units

1.21 Identification of Physical Units

The first stage concerns physical elements and components that result from the combination of landform and land cover.

- Landform

Landform is concerned with the spatial and formal arrangement of landscape components as a natural product of geological and geomorphological history. This level of categorisation can be achieved planimetrically by using available O.S. contoured maps, geological and geo-morphological studies, water catchment and drainage pattern and inputting these maps into GIS to produce a landform map based on a Digital Elevation Model (DEM). DEM is a digital

representation of the landform and is produced through the interpolation of the topographical information. Additional landform details can also be determined by investigating relief energy class and aspect.

- Landcover

Landcover is concerned with the more detailed constituent parts as manifested on the surface, both natural and man-made, and comprises vegetation, water bodies or rivers and includes buildings and human settlements. Satellite imagery together with land-use maps and aerial photographs as well as other studies of field enclosure patterns, soils, forestry, other vegetation and settlements will contribute to the development of a land-cover map in GIS.

When both these maps are overlaid the result is a physical unit map. This simply means that the result of this initial investigation, both in map form and in written or photographic descriptions, is an objective statement of 'what is there' physically on the surface resulting from geology, soils, hydrology, topography, vegetation and land-use. It thus provides an initial, but as yet incomplete, understanding of landscape. This will be verified in the field as part of the identification of visual units stage.

6.2.2 Identification of Visual Units

The second stage of landscape assessment is based on how the landscape is actually perceived. As people are typically located on the ground and not in the air, the extent of the view is often determined by such containing landform as mountains, hills and escarpments.

Visual units are described as areas defined by spatial enclosure and pattern which are determined by landform and land-cover. It is important to appreciate that, however complex in composition, it is within these visually perceived units that different kinds of development will take place and against which their compatibility will be evaluated. A single visual unit may comprise a number of physical units.

The boundaries of visual units can typically be identified through field verification by one, or a combination, of the following:

- Physical limits of a view or prospect, such as defined in mountainous areas by ridges enclosing, for example, steep-sided glaciated valleys.
- Physical limits of a water catchment as would be relevant in a lower rolling hill landscape.

- The 'gateway' between areas contrasting in their degree of spatial containment, such as at the mouth of a steep sided valley which flows out towards more open country below.

This level of assessment involves direct engagement with the landscape so that evidence gleaned in identification of physical units through desk studies can be visually verified on the ground.

Key visual assessment criteria used in the identification of visual units are listed in Table 6.1. Though apparently independent of each other, they inevitably and necessarily overlap and are effectively experienced collectively. In general, the impact of the development will be greater if the landscape characteristics before change is described in terms of attributes towards the left-hand column of the table.

Table 6.1. A Classification of Aesthetic factors in Landscape assessment

Category	Descriptors			
Balance	Harmonious	Balanced	Discordant	chaotic
Scale	Intimate	Small	Medium	Large
Enclosure	Confined	Enclosed	Open	Exposed
Texture	Smooth	Textured	Rough	Very Rough
Colour	Monochrome	Muted	Colourful	Garish
Diversity	Uniform	Simple	Diverse	Complex
Unity	Unified	Interrupted	Fragmented	Chaotic
Form	Straight	Angular	Curved	Sinuous

At this point it is possible to write a description of the landscape in terms of its physical and visual characteristics. A description is first produced referring to landscape components and elements and reflecting the visual assessment criteria listed above. The classification arising from combining landform and land-cover should be qualified with respect to other influencing factors such as geology as well as soils or ecology. Thus granite mountain moorland can be distinguished from old red sandstone mountain peatland. This elaborated description will be the final one used to identify the visual units of the landscape.

6.2.3 Identification of Image Units

In certain landscapes a physical feature is of such dominance that it acts as a major focal point. In such cases, a visual 'field' results from the association of part of the landscape character as established in the previous two stages with that feature. This, therefore, creates an image or place identity which is distinct from that derived simply from the physical or visual. An example might be the visual field created by such landmarks in Co. Sligo as Benbulben.

Although spatially dominant features are not common, it is important tu recognise this phenomenon where it exists and that it is described and mapped as an image unit.

Characterisation of Landscape Areas

The three stage assessment process thus far carried out provides the basis for the categorisation of landscape characterisation areas.

When landscape character areas are identified names can provide a useful indicator of the character concerned. For example, 'upland' is typically less fertile than 'lowland'. The term 'patchwork' for field pattern might be indicative of higher fertility and complex land-use such as mixed tillage and pasture while 'mosaic' could indicate greater homogeneity such as pasture only.

Contiguous though distinctly separate landscape character areas can also be read in relation to one another. For example, the names of such areas sequentially located along a river valley can include the words 'upper', 'middle' and 'lower'.

6.3 Landscape Values

Landscape values can be described as the environmental or cultural benefits, including services and functions, which are derived from various landscape attributes. These attributes will, in many instances, be the components and image of the landscape as already established in the assessment of landscape character.

In some instances a particular landform may itself be considered a value. It may be that the character of a given landscape makes it a particularly striking representative of its kind, providing identity based on uniqueness or rarity.

Some of the more frequent values (singly or in combination) which will be attributed to a landscape are the following:

- *Aesthetic* - most frequently visual, vistas, scenic areas, Outstanding Landscapes, Areas of Special Amenity

- *Ecological* - habitats, biotopes, wildlife sanctuary, Special Areas of Conservation, Natural Heritage Areas and Special Protection Areas
- *Historical* - archaeological heritage, artefacts, field patterns
- *Socio-cultural* - buildings, settlements, monuments, social history or social geography
- *Religious* - shrines, wells, burial places, pilgrimages
- *Mythological* - ancient Celtic stories....

Landscape values introduce a qualifying and potentially constraining influence upon development which would involve landscape change. While a proactive approach to development in many cases is necessary to ensure socio-economic progress and environmental enhancement, the identification of values and the resulting sensitivity of the landscape is an important counter-balancing force indicating the need for careful planning and sensitive design.

Practically speaking, relevant landscape values can be obtained from the following sources, involving both desk studies and fieldwork.

1) Desk studies:
   - Maps and atlases
     e.g Ordnance survey 1:50,000, 1:25,000, 1:10,760 and 1:2,500 scaled maps as well as amenity / tourist maps looking for popular or culturally significant locations
   - Existing designations (which may need updating / revision)
     e.g. Special Areas of Conservation (SAC's), Special Protection Areas (SPA's), Areas of Special Amenity (ASA's) and Outstanding Landscapes (OL's)
   - Statutory plans and reference material
     e.g. County Development Plans, special studies, publications and reports
   - Inventories
     e.g. national or regional inventories such as water catchments, habitats and forestry.
2) Field work:
   - Consultation with the general public (eg. local community, visitors, community groups), NGO's and special interest groups as well as professionals
     e.g. attitudinal surveys and focus groups at different scales (national, regional and/ or local)
   - Artistic interpretation
     e.g. work of painters, sculptors, photographers, poets, dramatists and writers

The primary outcome of this assessment will be a series of thematic maps depicting values of different kinds (e.g. scenic landscapes, fisheries, ASSI's, archaeological sites). Due to the possibility of numerous thematic maps, the use of GIS technology is strongly recommended. In particular GIS will enable convenient and simultaneous overlaying of different values for cross relating and comparisons.

6.4 Sensitivity

The sensitivity of a landscape to development and therefore to change will vary according to its character and to the importance which is attached to any single value or combinations of values which are attributed to that landscape. The sensitivity of a landscape is the measure of its ability to accommodate change or intervention without suffering unacceptable effects to its character and values.

Evaluation of sensitivity is ultimately concerned with providing a basis for decision making in order to achieve environmental sustainability. While ready formulae to achieve this are not available, it is possible to systematically identify, examine and compare the factors that ultimately will prioritise certain values for environmental sustainability.

Where a wide range of developments would sit comfortably in a particular landscape and not interfere with a character or interfere with or eliminate a value, *such* a landscape is deemed to be of low sensitivity.

On the other hand where any proposed development would seriously damage a character or eliminate or seriously damage an irreplaceable value, such a landscape would be considered to be highly sensitive.

While sensitivity will be evaluated principally in relation to values, considerations of the character of the landscape sometimes will enter the equation. Put another way, the character of the landscape - because of its uniqueness or because it is a particularly good representative of a particular character type, may make that landscape highly sensitive. Additional values attaching would increase the sensitivity.

Some or all of the following indicators should be taken into account

- Quality: Is the particular character type degraded or unspoiled…?
- Integrity: Have rare elements been changed, removed, interfered with by unsympathetic structures.

- Distinctiveness: Very striking example of the value or character type.
- Popularity: Where the feature is widely recognised or appreciated.
- Rarity: Very few examples exist.
- Cultural Meaning: Either explains, represents or inspires cultural values.
- Sense of Public Ownership: Either because of the accessibility, visibility or the widely shared meaning.
- Social Importance: May range from local importance to national; maybe economic or tourist interest.

Areas of sensitivity will often be recorded or represented in the following documents:

- Designations (eg. SPAs, ASAs, SA, SAAOs)
- Earlier County Development Plans
- Area reports
- Tourist maps
- Products of the arts, including paintings, literature...
- Landscape Conservation Areas (Planning and Development Bill, 1999)

Where values are deemed to be important, a strong conservation oriented approach might be adopted. Conversely, where it is agreed that value(s) are of low importance, plentiful and easily replaceable, a more pro-active stance on development would be appropriate.

6.5 Landscaping and Planting

A planted 3metre high berm will be created along the eastern site boundary (hedgerow 8 in field no F2) to minimize the visual impact on road users. The hedgerow has poor structural development but some individual tree and shrub specimens may be retainable for transplanting on the berm-top and sides. Additional plant species will be selected in consideration of the local hedgerow assemblages, as discussed below. The western boundary of F2, where buildings are not located directly adjacent to the perimeter, also provides opportunity for berm construction. This would be appropriate considering the location of the nearest resident. The existing hedgerow along this boundary is of relatively high ecological importance in comparison to others

at the site, containing a significant number of semi-mature trees. Efforts will, therefore, be made to maintain this hedgerow intact and to place the berm inside it rather than to replace it. These berms will be planted with a mixture of shrub, saplings and semi-mature trees in order to blend them in with the surrounding area in terms of vegetation character, in addition to providing greater visual screening than an unplanted or grassy berm.

An opportunity for the planting of stands of trees occurs at the north-western and north-eastern corners of the site. Species such as Silver Birch (*Betula pendula)* which already occur in small aggregations close to the site would suit such a planting arrangement.

Outer perimeter hedgerow and tree-line management to integrate and merge the development into the surrounding landscape will concentrate on species already occurring in field boundaries at the perimeter of the site. Individual trees of the following species in particular will be identified for quality enhancement treatment in addition to new planting.

List 1	Grey Willow	(*Salix cinerea*)
	Beech	(*Phagus sylvatica*)
	Common Alder	(*Alnus glutinosa*)
	English Elm	(*Ulmus procera*)
	Ash	(*Fraxinus excelsior*)
	Rowan	(*Sorbus aria*)
	Silver Birch	(*Betula pendula*)

The introduction of some coniferous species for the provision of evergreen screening and shelter planting will be considered for both the perimeter and on-site hedgerows. Species such as those in list 2 will be considered.

List 2	Scots Pine	(Pinus sylvestrus
	Monterey Pine	(Pinus radiata)
	Weymouth Pine	(Pinus strobes)

The following hedgerow species will undergo management and be newly planted where gaps occur for the purpose of structural improvement of the perimeter for screening and habitat enhancement.

List 3	Hawthorn	(*Crataegus monogyna*)
	Bramble	(*Rubus fruticosus* agg)
	Holly	(*Ilex aquifolium*)
	Blackthorn	(*Prunus spinosa*)
	Honeysuckle	(*Lonicera periclymenum*)
	Ivy	(*Hedera helix*)
	Broom	(*Cytisus scoparia*)

Dog Rose	(*Rosa canina*)
Fuchsia	(*Fuchsia magellanica*)
Gorse	(*Ulex europaeus*

Thorn bearing species such as Hawthorn, (*Crataegus monogyna*) and Blackthorn, (*Prunus spinosa*) will also function as a security barrier at the perimeter hedgerows. A 1.7 metre high palisade security fence will reinforce the perimeter planted zone.

On-site partition planting

This planting will be undertaken on berms and grassy landscaped areas dividing various section of the operating facility. Hedges planted will consider the species occurring in the area and will use list 3 species interspersed with list 1 species to provide visual screening and Herb layer species will not be introduced or planted to induce an understory at the foot of newly planted hedgerows within the site. A natural succession of herb layer species through seed dispersal from existing plants in the vicinity will be facilitated and encouraged by avoiding the use of herbicides at hedgerow bases.

Ornamental planting will be located in zones close to the administration building and its associated car parks. Certain attractive and locally occurring species will be incorporated into these ornamental sections, such as Rowan, (*Sorbus aria*) and Silver Birch (*Betula pendula*).

APPENDIX 7
TRAFFIC IMPACT ASSESSMENT

Comhairle Chontae Mhuineacháin
OIFIGÍ CONTAE,
AN GLEANN,
MUINEACHÁN.
Guthán : 047 - 30500

Seoltar comhfhreagrais go dtí an Rúnaí.

Monaghan County Council
COUNTY OFFICES
THE GLEN, MONAGHAN.
Telephone: 047 - 30500
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All correspondence should be addressed to the Secretary.

Rec. 3/8/01

Declan Waugh
South Western Environmental Services
Shinagh House
Bandon
West Cork

Our Ref:
25 June 2001

Re: Proposed Biomass Plant at Killycarran, Emyvale, Co Monaghan. Development of proposed plant in relation to Monaghan County Council County Development Plan

Dear Mr. Waugh,

Further to our recent meeting of 7th June 2001 at Monaghan County Council offices regarding the proposed development of a 28MW biomass CHP plant at **Killycarran, Emyvale, Co Monaghan** please note the following:

The location (Grid Reference 263859E: 343991 N) proposed for the development is accessible by via a number of local roads which allow access to the National Road N2 and the Regional Road R186.

In their present capacity these local roads are not suitable for the increased volume of traffic such a development would entail. In order to facilitate the increased heavy goods traffic associated with this development, it is envisaged that these roads would have to be upgraded, probably to that of regional road standard.

The Non-National Road Restoration Programme outlines the Councils proposed works in relation to road improvements up to the year 2006. The following points should be noted.

- There are currently no proposals to upgrade the roads between the R186 and the site (Roads referenced LPO 1133; LSO 5142) and the roads between Emyvale and the proposed site at Killycarran (Road References LPO 1151, LPO 1150, LPO 1160).

- The road connecting the site connecting the site with the Regional Road R 186 (Road reference LPO 1133) is due for restoration in the year 2003 as part of the Non-National Road Restoration Programme.

- The road referenced LPO 1151 forming part of the route between the development and the town of Emyvale (located on the National Road N2) is scheduled for restoration in the year 2003.
- The road referenced LPOI 150 forming part of the route between the development and the town of Emyvale (located on the National Road N2) is scheduled for restoration in the year 2006.

The other local roads, referenced LPO 1160, and LSO 5142, which form the remaining sections of the routes between Emyvale/Regional Route R186 and the proposed development at Killycarran, are not contained in the Restoration Programme.

Decisions on planning applications for industrial and commercial projects are taken having regard to the proper planning and development of the area and the provisions of the County Development Plan. Subject to the proposed Biomass Plant progressing to development, the Council would require appropriate infrastructural improvement in the immediate area of the plant.

Monaghan County Council considers that the proposed Biomass Plant at Killycarran would constitute a significant development in the region. The Council considers that the development Nould require the upgrade/improvement of the existing road network in order to ameliorate the mpact of increased traffic resulting from the proposed development.

In line with the County Development Plan the developer would be required to make a contribution towards the cost of upgrading the existing road infrastructure.

Mise, le meas,

Billy Moore
County Engineer