



Tylorstown Landslide

Environmental Impact Assessment

Volume 3 - Appendices

Series 12 Noise

December 2021



Appendix 12.1

Noise Survey

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Survey details

An attended noise survey was carried out on Tuesday 01/12/2020 and Wednesday 02/12/2020, during daytime. In total, noise levels were measured at 4 locations, indicated as Position 1 to Position 4.

At each measurement position the microphone was mounted on a tripod at least 1.5 metres above local ground level and at least 1 metre from any other reflective surface, therefore the sound pressure levels measured are considered to be free-field levels.

The measurements carried out were all performed over a minimum of 5-minute periods.

Equipment

Table 1 provides the details of the sound level meters and calibrators used during the survey.

All sound levels meters were calibrated both before and after the measurements and no significant deviations occurred.

Calibration certificates are available upon request.

Table 1: Equipment used for the noise survey

Position	Item	Manufacturer	Model	Serial Number
1	Sound Level Meter	Svantek	977	45409
	Calibrator	Larson Davis	CAL 200	9091
2, 3, 4	Sound Level Meter	Bruel & Kjaer	2250 G4	3009339
	Calibrator	Bruel & Kjaer	4231	2705904

Noise monitoring results

Table 2 shows the hourly results for the measurements at Position 1 (Blaen-Ilechau). Position 1 measurements were carried out off Blaenllechau Road, approximately 8 metres away from the road centre line, with the microphone on tripod at a height of 1.5 metres. The acoustic character of the area was defined by road traffic noise from Ferndale's road network with occasional vehicle pass-by on Blaenllechau Road and wildlife noise.

Table 2: Noise measurements results at Position 1 (Blaen-llechau)

Date	Start Time (hh:mm)	Duration (mins)	Measured Sound Pressure Levels (dB)							
			L _{Aeq,T}	Range L _{Aeq,5min}	L _{A90,T}	Range L _{A90,5min}	L _{A10,T}	Range L _{A10,5min}	L _{AFmax,T}	Range L _{AFmax,5min}
Tue 01/12/2020	13:00	60	64	52 - 74	40	38 - 41	52	46 - 57	100	70 - 100
Tue 01/12/2020	14:00	60	56	52 - 58	40	39 - 42	56	51 - 59	77	70 - 77
Tue 01/12/2020	15:00	60	57	53 - 62	40	40 - 43	55	48 - 58	84	65 - 84
Tue 01/12/2020	16:00	60	58	53 - 59	41	40 - 42	58	48 - 61	78	72 - 78
Wed 02/12/2020	10:00	60	53	47 - 56	41	38 - 43	47	44 - 51	76	67 - 76
Wed 02/12/2020	11:00	60	55	49 - 61	40	38 - 42	48	44 - 55	86	70 - 86
Wed 02/12/2020	12:00	60	55	49 - 58	41	39 - 44	52	45 - 60	79	69 - 79

Table 3 shows the hourly results for the measurements at Position 2 (Welshpoultry). For most of the survey, activity on Phase 1 and 2 works could be seen at the distance although it did not dominate the acoustic environment except for occasionally metal clanging. Dirt bikes could be heard far in a northern direction. Road traffic noise from the A423 was also audible. Some chainsaw noise cutting trees could be heard near trucks behind the leisure centre. However, the background noise could be defined as uneventful.

Table 3: Noise measurements results at Position 2 (Welshpoultry)

Date	Start Time (hh:mm)	Duration (mins)	Measured Sound Pressure Levels (dB)							
			L _{Aeq,T}	Range L _{Aeq,5min}	L _{A90,T}	Range L _{A90,5min}	L _{A10,T}	Range L _{A10,5min}	L _{AFmax,T}	Range L _{AFmax,5min}
Tue 01/12/2020	15:00	60	44	40 - 49	41	40 - 48	47	41 - 50	63	45 - 63
Tue 01/12/2020	16:00	27	41	40 - 42	40	40 - 41	42	40 - 43	54	45 - 54
Wed 02/12/2020	10:00	60	41	39 - 44	38	36 - 42	40	38 - 50	46	42 - 60
Wed 02/12/2020	11:00	60	40	38 - 43	37	34 - 42	39	37 - 47	44	39 - 59

Figure 1 shows the location of the sound level metre at Position 2. Figure 2 shows some Phase 1 activity seen from Position 2 (Welshpoultry).

Figure 1: Sound level meter at Position 2 (Welshpoultry) looking towards the area of the Scheme's haul route



Figure 2: Some Phase 1 activity as seen from Position 2



Table 4 shows the results of the measurement at Position 3 at the car park of the Rhonda Fack Leisure Centre. Some diggers could be heard at a certain distance further up tracks, however road traffic noise dominated the acoustic character. Some vehicles pass by happened in the car park. Wildlife and school children could also be heard.

Table 4: Noise measurements results at Position 3 (Rhonda Fack Leisure Centre)

Date	Start Time (hh:mm)	Duration (mins)	Measured Sound Pressure Levels (dB)							
			L _{Aeq,T}	Range L _{Aeq,1min}	L _{A90,T}	Range L _{A90,1min}	L _{A10,T}	Range L _{A10,1min}	L _{AFmax,T}	Range L _{AFmax,1min}
Tue 01/12/2020	17:20	5	48	42 - 50	42	41 - 42	49	42 - 55	61	45 - 61
Wed 02/12/2020	12:06	15	48	43 - 56	43	42 - 44	52	43 - 56	70	44 - 70

Table 5 shows the results at Position 4 which was intended to define the noise from the Phases 1 and 2 works in order to use in the modelling of Phase 4. However, the dominant noise source was road traffic.

Table 5: Noise measurements results at position 4 (East Street)

Date	Start Time (hh:mm)	Duration (mins)	Measured Sound Pressure Levels (dB)							
			L _{Aeq,T}	Range L _{Aeq,1min}	L _{A90,T}	Range L _{A90,1min}	L _{A10,T}	Range L _{A10,13min}	L _{AFmax,T}	Range L _{AFmax,1min}
Wed 02/12/2020	13:17	13	56	51 - 59	52	46 - 51	58	54 - 63	73	56 - 73