

# **A1 in Northumberland: Morpeth to Ellingham**

**Scheme Number: TR010041**

## **6.7 Environmental Statement – Appendix 6.6 Noise Survey Details**

**Part A**

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed  
Forms and Procedure) Regulations 2009

June 2020

Infrastructure Planning

Planning Act 2008

**The Infrastructure Planning  
(Applications: Prescribed Forms and  
Procedure) Regulations 2009**

**The A1 in Northumberland: Morpeth to Ellingham  
Development Consent Order 20[xx]**

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**Environmental Statement - Appendix**

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<b>Regulation Reference:</b>	APFP Regulation 5(2)(a)
<b>Planning Inspectorate Scheme Reference</b>	TR010041
<b>Application Document Reference</b>	TR010041/APP/6.7
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## NOISE SURVEY APPROACH

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- 6.1.1. The survey comprised attended and unattended monitoring at various locations in the vicinity of Part A: Morpeth to Felton (Part A) during a 24-hour period. The survey commenced at approximately 11:00 hours Tuesday 20 March 2018 and concluded at approximately 12:00 hours on Wednesday 21 March 2018.
- 6.1.2. The measurement locations are shown on **Figure 6.1: Noise and Vibration Assessment Extents, Volume 5** of this Environmental Statement (ES) (**Application Document Reference: TR010041/APP/6.5**).
- 6.1.3. For all locations the sound level metre was in free-field conditions (i.e. no reflecting surfaces, apart from the ground, within 3.5 m of the microphone).

## EQUIPMENT DETAILS

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- 6.1.4. The Class 1 sound pressure level measurement systems and hand-held acoustic calibrators, as detailed below in **Table 6-1**, were used over the course of the baseline noise survey.
- 6.1.5. Each of the measurement systems had been calibrated to traceable standards within the previous 24 months, and the handheld calibrators within the previous 12 months. Using the paired hand-held calibrator for each system, the measurement chain was subject to calibration at the beginning and end of each measurement. No significant calibration drifts arose.
- 6.1.6. At each measurement location, the microphone of the installed measurement system was fitted with a windshield.

**Table 6-1 - Noise Monitoring Equipment Details**

Internal reference	Equipment	Make / model	Serial number
Fusion 1	Sound level meter	01dB Fusion	10797
	Pre-amplifier	01dB	10870
	Microphone	01dB	207593
	Calibrator	01dB	34254631
Rion	Sound level meter	Rion	242744
	Pre-amplifier	Rion	32772
	Microphone	Rion	6229
	Calibrator	Rion	34246512
Fusion 2	Sound level meter	01dB Fusion	10796
	Pre-amplifier	01dB	10882
	Microphone	01dB	207588
	Calibrator	01dB	34254632

<b>Internal reference</b>	<b>Equipment</b>	<b>Make / model</b>	<b>Serial number</b>
Cube 4	Sound level meter	01dB Cube	10748
	Pre-amplifier	01dB	11102
	Microphone	01dB	1224197
	Calibrator	01dB	35054825
Cirrus	Sound level meter	Cirrus	G053886
	Pre-amplifier	Cirrus	n/a
	Microphone	Cirrus	111349
	Calibrator	Cirrus	57831

## WEATHER CONDITIONS

- 6.1.7. Meteorological measurement data for the survey period have been obtained from [www.wunderground.com](http://www.wunderground.com) for a weather station at Morpeth (IMORPETH13), which is that closest to Part A.
- 6.1.8. These data have been analysed and the wind speed, wind direction and temperature are presented in **Table 6-2** below. Generally, conditions were fair throughout.

**Table 6-2 - Meteorological Conditions during the noise survey**

Day	Date	Period	Wind					Temperature (range {ave} in °C)
			Speed (ms <sup>-1</sup> )			Direction		
			Min	Ave	Max	Range	Dominant	
Tue	20-Mar-18	11:00-23:00	0.0	2.0	4.5	SSW-ESE	Initially N, finally SW	0-7 {3}
		23:00-07:00	1.3	3.4	5.4	SW-WNW	W	0-2 {1}
Wed	21-Mar-18	07:00-12:00	5.4	6.8	7.6	WSW-W	W	3-7 {5}

Notes:

Meteorological data (half hourly observations) taken from [www.wunderground.com](http://www.wunderground.com) for Morpeth, located within one kilometre of the southern end of Part A

- 6.1.9. It can be seen that wind speeds remained below 5 m·s<sup>-1</sup> for most of the survey period although winds picked-up during the morning of the 21 March. There was no precipitation and in general weather conditions remained conducive to accurate environmental noise measurement over the course of the baseline noise survey.

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