The Great Grid Upgrade

North Humber to High Marnham

NHHM-AEC-CNS-REP-0110

North Humber to High Marnham

Volume 6: Environmental Statement

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nationalgrid

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1. Baseline Noise Survey Data

1.1 Introduction

1.1.1 This appendix to **Application Document 6.16 Chapter 16 Noise and Vibration** presents results of the baseline noise survey at noise sensitive receptors as part of the North Humber to High Marnham Project. Baseline noise surveys have been conducted at 11 locations representative of noise sensitive receptors (NSR) closest to the proposed overhead line.

1.2 Noise Survey Methodology

1.2.1 The noise survey was undertaken following the principles of British Standard (BS) 7445-1:2003. Description and measurement of environmental noise – Part 1: Guide to quantities and procedures (BS 7445-1) (BSI, 2003) and BS 4142:2014+A1:2019 – Methods for rating and assessing industrial and commercial sound (BS 4142) (BSI, 2019).

Survey Procedure

1.2.2 Continuous noise measurements were undertaken at eleven monitoring locations over seven days, including weekday and weekend periods, between Monday 2 June and Monday 9 June 2025.

1.2.3 Continuous noise monitoring was undertaken for an ecology baseline noise survey at the 21 survey locations over 24-hour periods, between Monday 2 June and Tuesday 30 September 2025.

1.2.4 Calibration of the sound levels meter was checked at the start and end of the measurements. No significant drift was noted during the surveys. The sound level meters had been laboratory calibrated within 24 months and the acoustic calibrators had been laboratory calibrated with 12 months of the survey, in line with the requirements of BS 4142 (BSI, 2019).

1.2.5 A full suite of acoustical parameters was measured during the surveys, but the following parameters are of particular relevance for the assessment of operational noise and reported:

- $L_{Aeq,15min}$ (the equivalent continuous A-weighted sound pressure level);
- $L_{AFmax,15min}$ (the maximum sound level during the measurement period); and
- $L_{A90,15min}$ (the sound level that was exceeded for 90 per cent of the measurement period; i.e. a typical lower value).

1.2.6 The measurements were set to continuously repeating 15-minute periods. One-second L_{eq} measurements and one-third octave band sound levels were also recorded.

1.2.7 The sound level meters were housed within weatherproof cases with the microphone mounted via a tripod or pole height at height of between 1.2 m and 1.5 m.

1.2.8 Weather conditions were monitored during the surveys and periods of rain and/or high wind (>5 m/s) were excluded from the assessment.

1.3 Survey Locations

1.3.1 The noise surveys were conducted at the locations shown in **Application Document 6.16.F1 Figure 16.1 Noise and Vibration Baseline**. The survey locations were submitted to the local planning authorities prior to conducting the surveys. Further site-specific details are provided in section 1.4.

1.4 Baseline Noise Survey Results

Location P1

1.4.1 A photograph of survey location P1 is provided in Image 1.1.

Image 1.1 – North Humber to High Marnham Survey Location P1 Set Up Picture



The survey location is as follows:

- Easting/Northing: 502479/434624;
- What3words (what3words, 2026): painted.basics.recruited; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 14151; and
- Acoustic Calibrator: 01dB Cal31 82830.

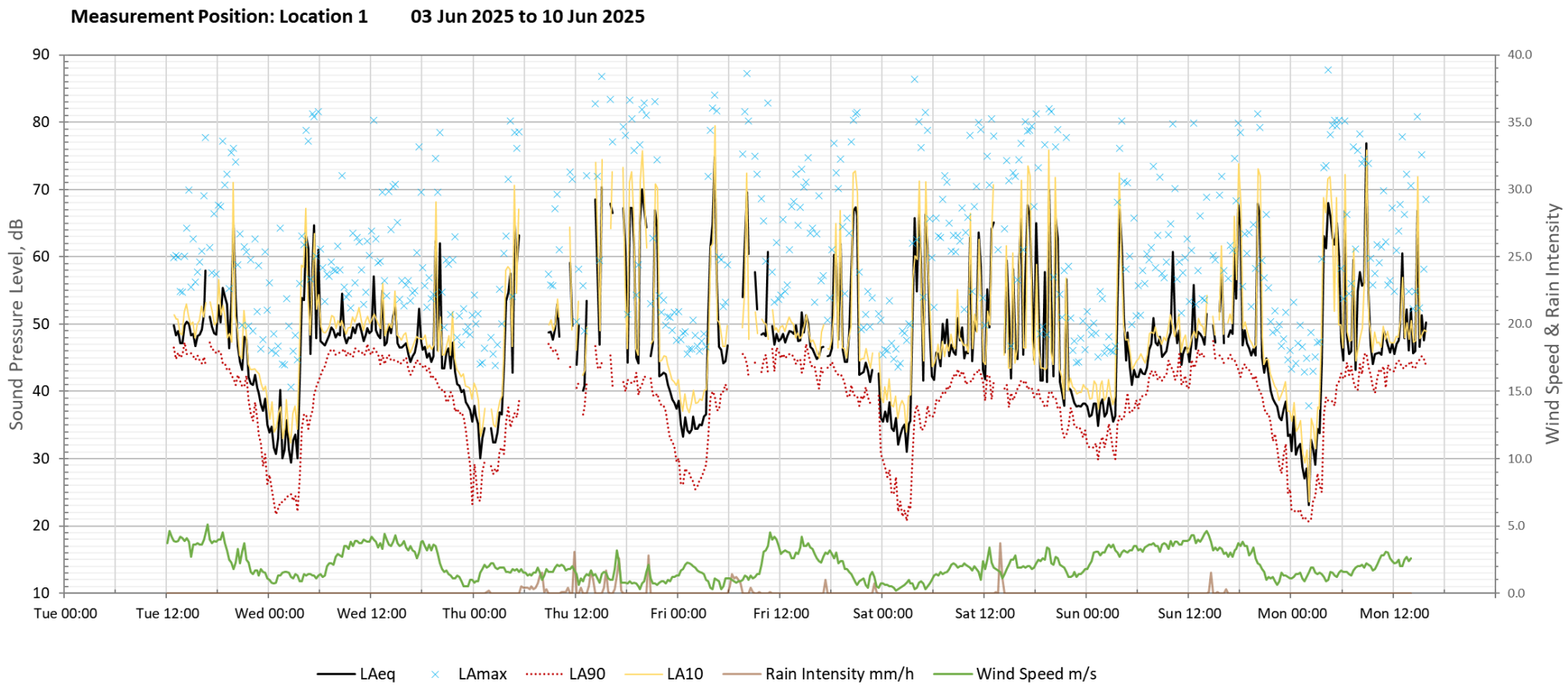
Details of the Noise climate

1.4.2 The noise climate at monitoring location P1 is typical of a predominantly rural, agricultural area. The main sources of ambient sound are distant road traffic sources from the A164. There were also contributions from agricultural activity in the nearby fields, and the golf course (distant talking and golf ball strikes), just south of the monitoring location.

Survey Results

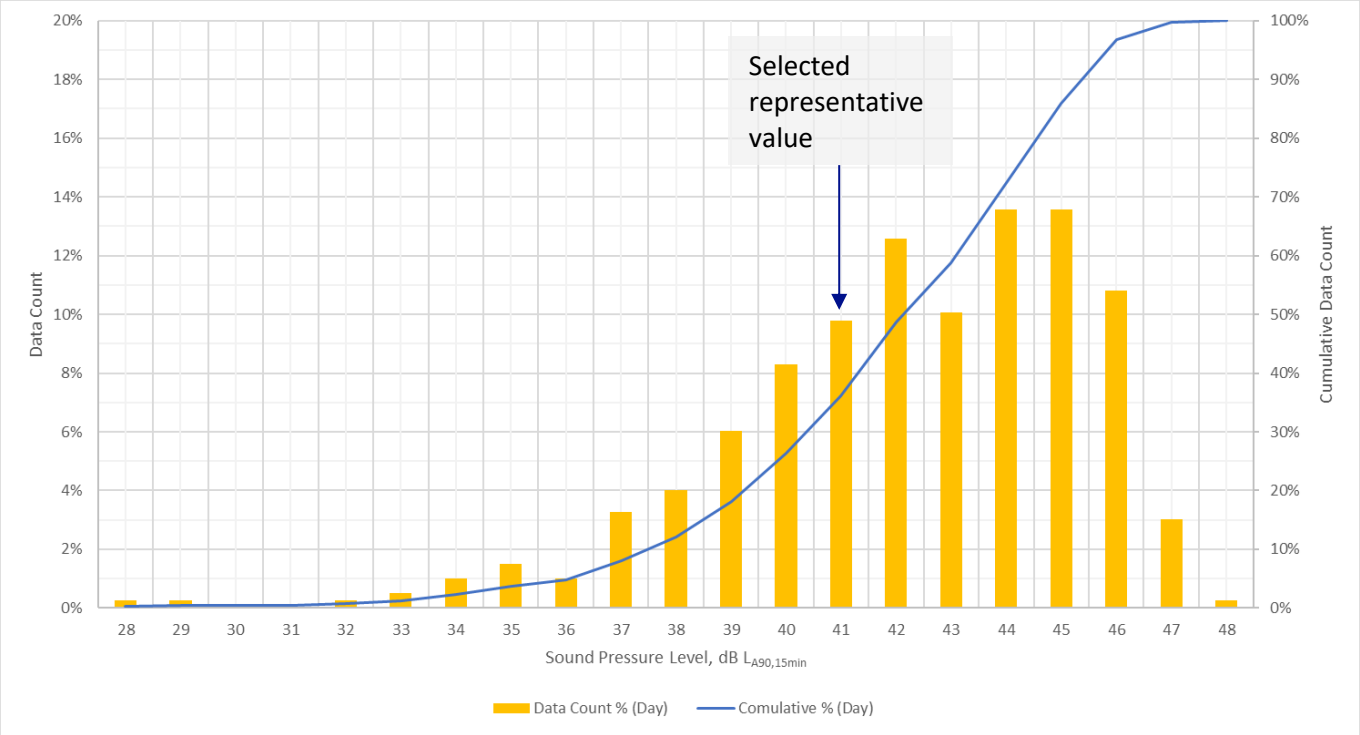
1.4.3 The temporal variation in sound level during the survey period is shown in Image 1.2.

Image 1.2 – Survey variation in sound levels - Location P1



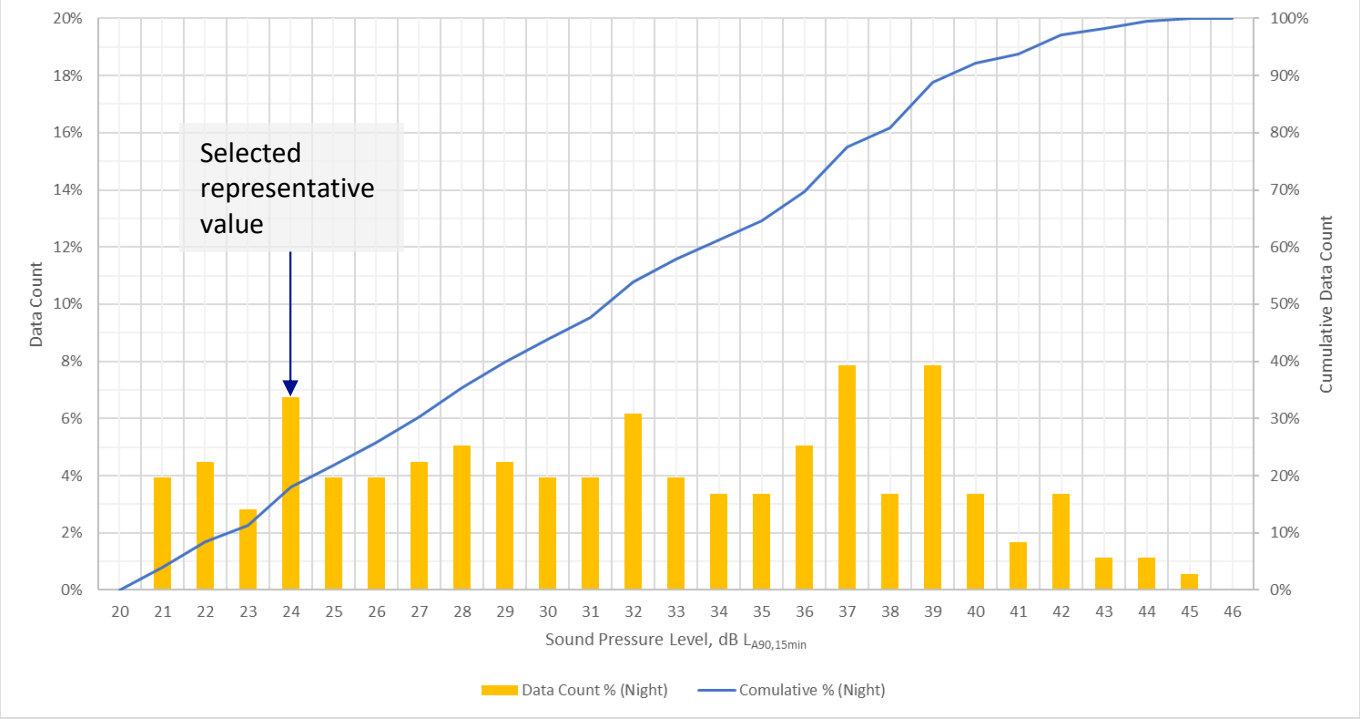
1.4.4 The distribution of background sound level levels during daytime periods is shown in Image 1.3

Image 1.3 – Distribution of background sound levels (Daytime) - Location P1



1.4.5 The distribution of background sound level levels during night-time periods is shown in Image 1.4.

Image 1.4 – Distribution of background sound levels (Night-time) - Location P1



1.4.6 A summary of measured sound levels is provided in Table 1.1

Table 1.1 – Summary of measured sound levels - P1

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 36 - 75 Average: 60	Range: 44 - 95 Typical: 75	Range: 28 - 48 Average: 42 Mode: 44/45
Night	Range: 23 - 75 Average: 58	Range: 38 - 88 Typical: 50	Range: 21 - 45 Average: 32 Mode: 24/37/39

Representative background sound levels

1.4.7 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P1:

- Daytime: 41 dB L_{A90}; and
- Night-time: 24 dB L_{A90}.

Location P2

1.4.8 A photograph of survey location P2 is provided in Image 1.5.

Image 1.5 – North Humber to High Marnham Survey Location P2 Set Up Picture



1.4.9 The survey location is as follows:

- Easting/Northing: 496596/431885;
- What3words (what3words, 2026): flamed.built.satellite; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 12081; and
- Acoustic Calibrator: 01dB Cal31 82830.

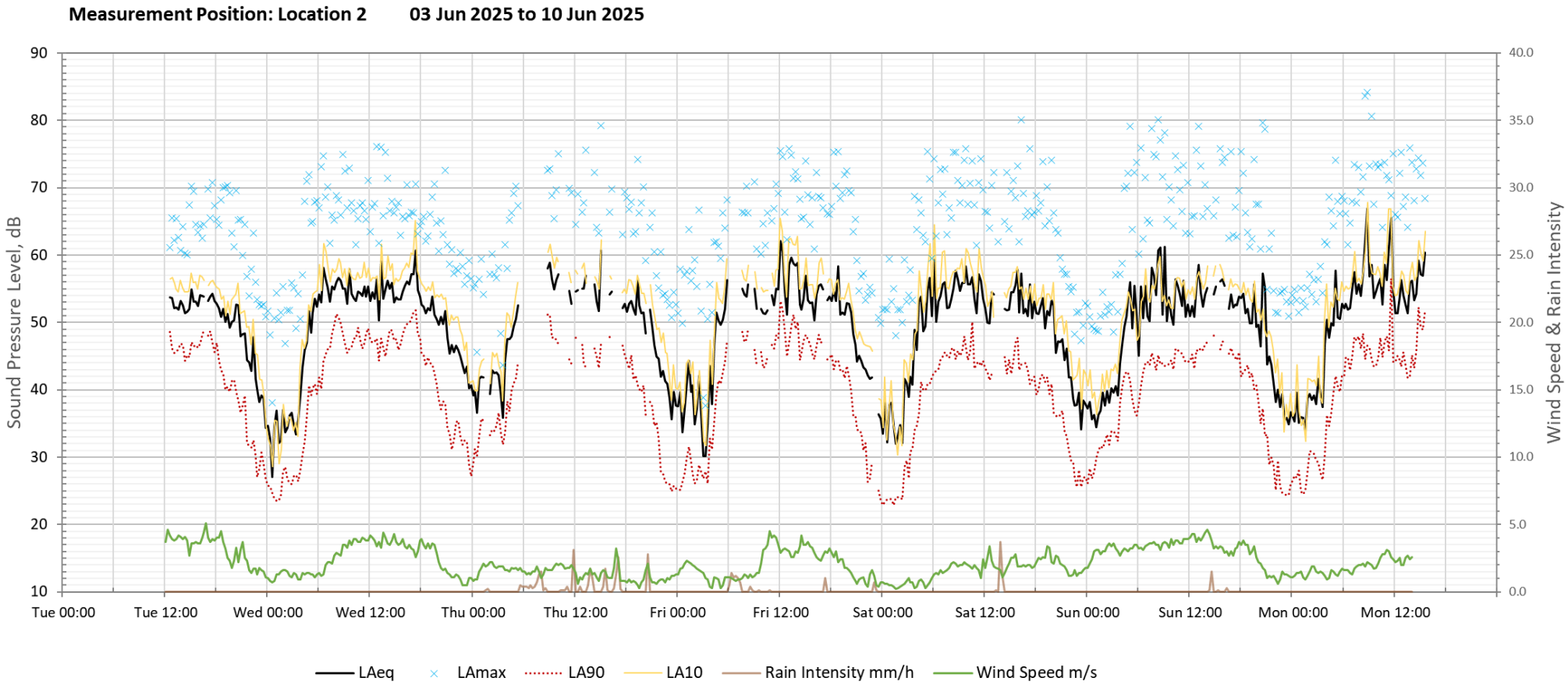
Details of the Noise climate

1.4.10 The noise climate at monitoring location P2 is typical of a predominantly rural area. The main sources of ambient sound are road traffic noise from Riplingham Road and general agricultural activity at the nearby farm There were also contributions from bird song and foliage.

Survey Results

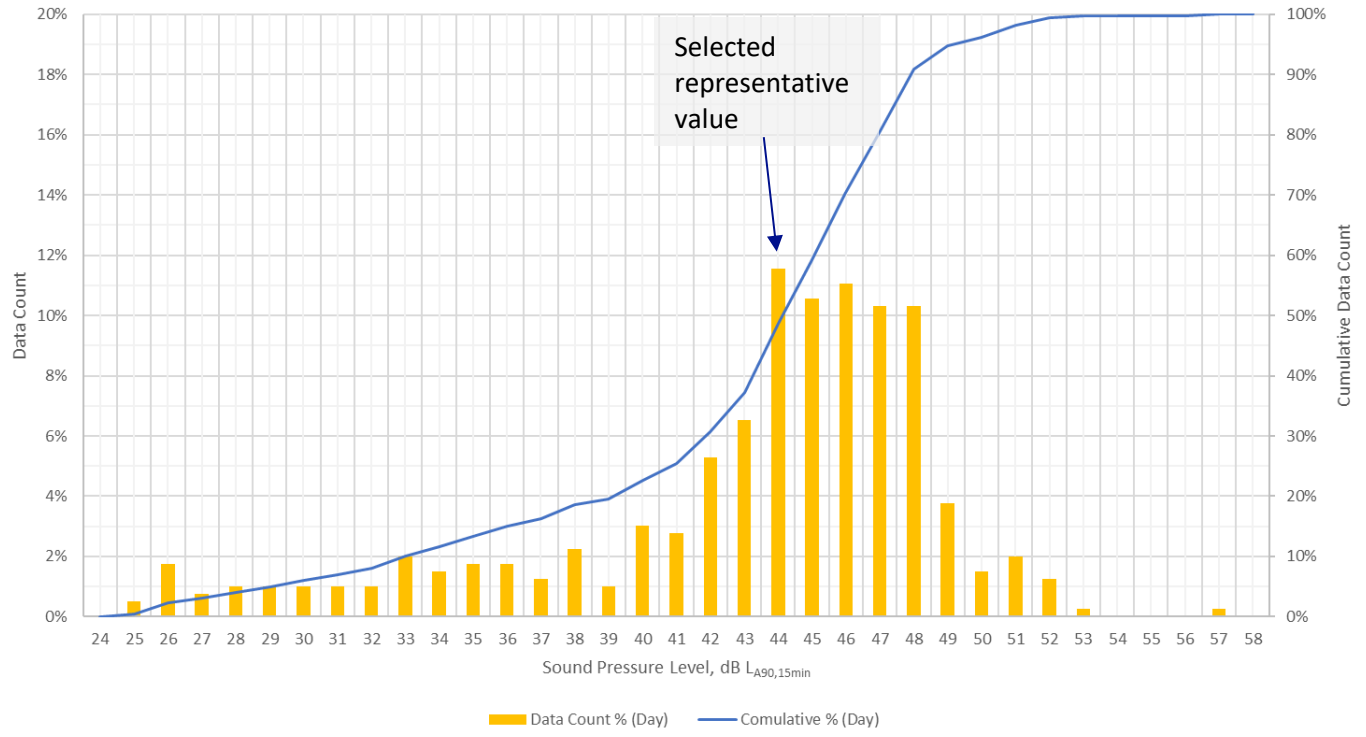
1.4.11 The temporal variation in sound level during the survey period is shown in Image 1.6.

Image 1.6 – Survey variation in sound levels - Location P2



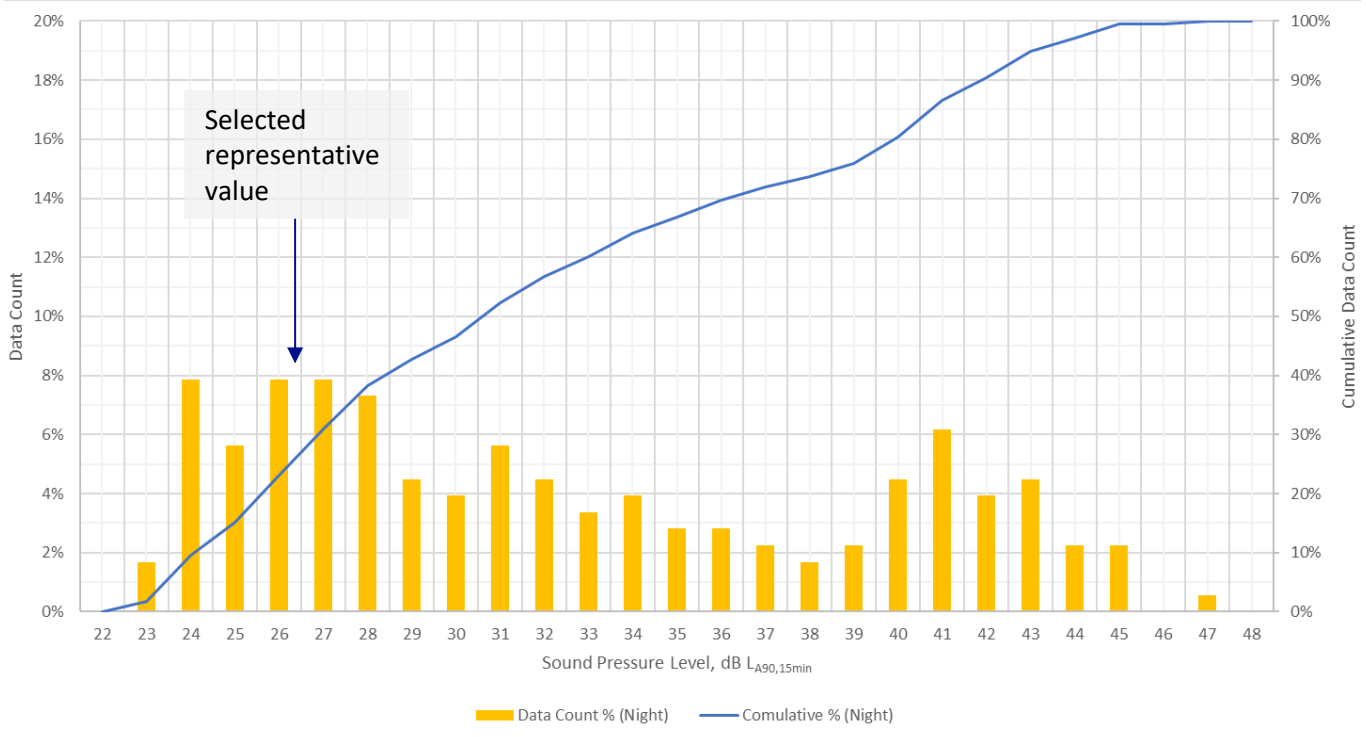
1.4.12 The distribution of background sound level levels during daytime periods is shown in Image 1.7.

Image 1.7 – Distribution of background sound levels (Daytime) - Location P2



1.4.13 The distribution of background sound level levels during night-time periods is shown in Image 1.8.

Image 1.8 – Distribution of background sound levels (Night-time) - Location P2



1.4.14 A summary of measured sound levels is provided in Table 1.2.

Table 1.2 – Summary of measured sound levels – P2

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 37 - 67 Average: 55	Range: 48 - 84 Typical: 66	Range: 25 - 57 Average: 44 Mode: 44
Night	Range: 27 - 59 Average: 48	Range: 38 - 79 Typical: 55	Range: 23 - 47 Average: 31 Mode: 26

Representative background sound levels

1.4.15 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P2:

- Daytime: 44 dB L_{A90}; and
- Night-time: 26 dB L_{A90}.

Location P3

1.4.16 A photograph of survey location P3 is provided in Image 1.9.

Image 1.9 – North Humber to High Marnham Survey Location P3 Set Up Picture



1.4.17 The survey location is as follows:

- Easting/Northing: 489030/428148;
- What3words (what3words, 2026): golf.wiped.proves; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 12076; and
- Acoustic Calibrator: 01dB Cal31 82830.

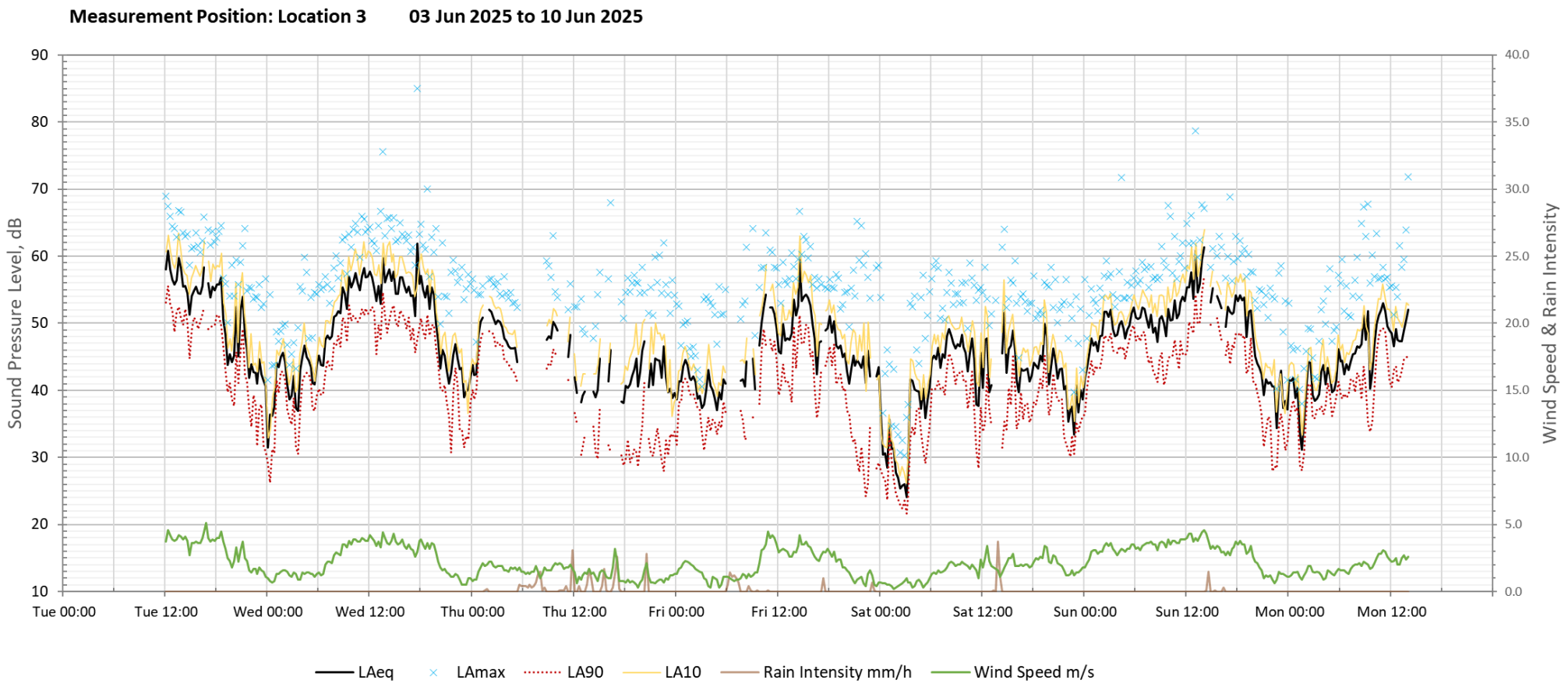
Details of the Noise climate

1.4.18 The noise climate at monitoring location P3 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

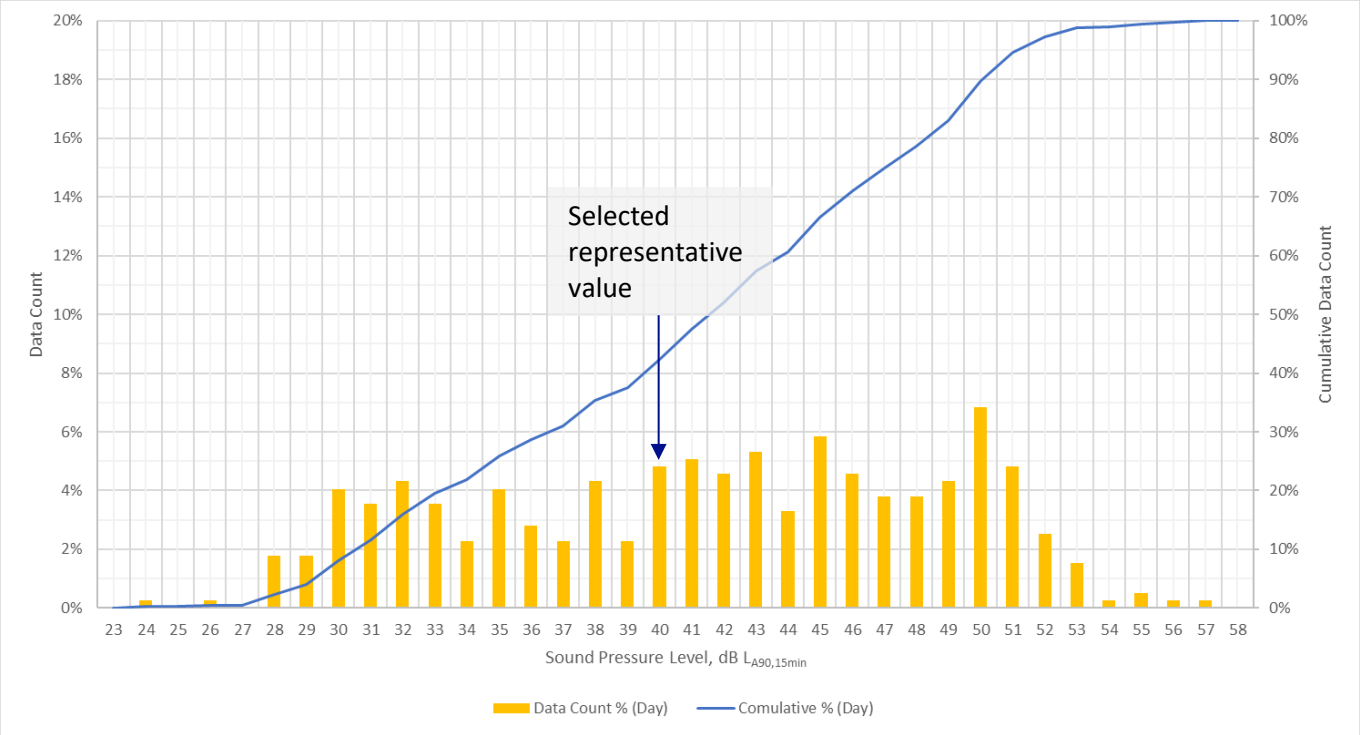
1.4.19 The temporal variation in sound level during the survey period is shown in Image 1.10.

Image 1.10 – Survey variation in sound levels - Location P3



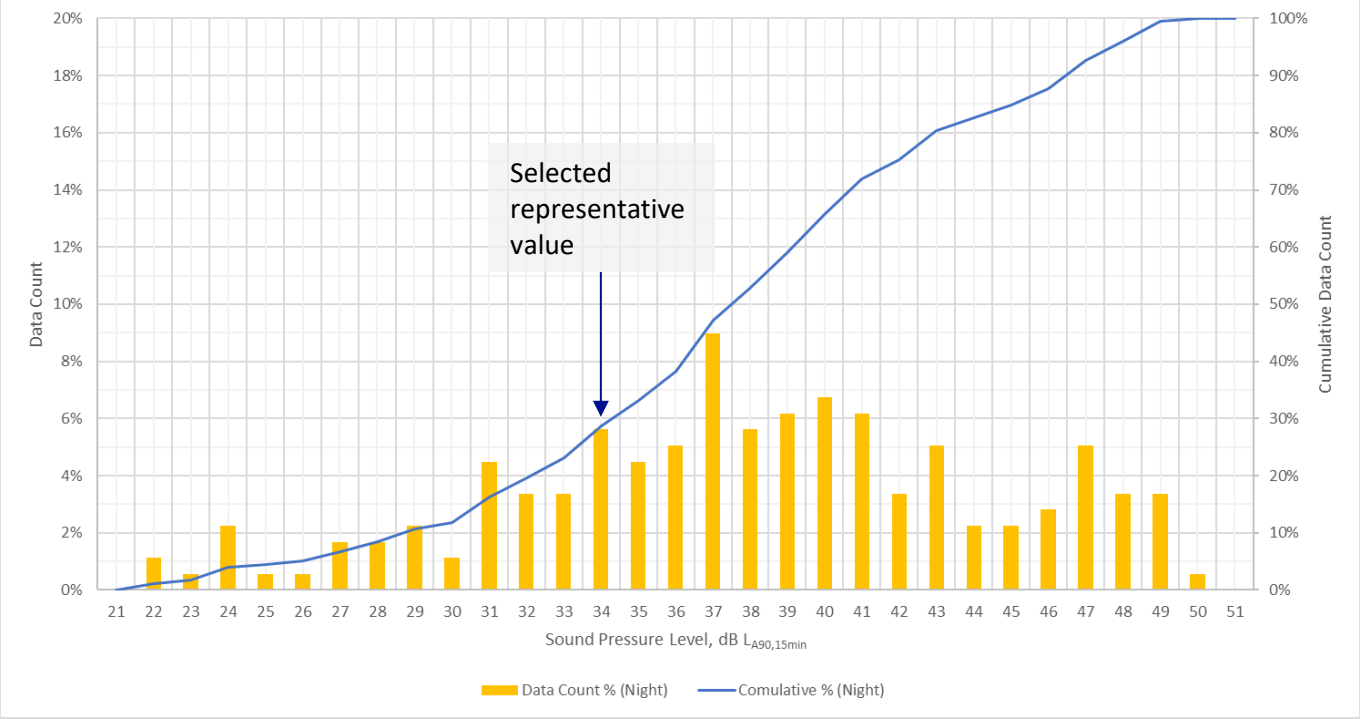
1.4.20 The distribution of background sound level levels during daytime periods is shown in Image 1.11.

Image 1.11 – Distribution of background sound levels (Daytime) - Location P3



1.4.21 The distribution of background sound level levels during night-time periods is shown in Image 1.12.

Image 1.12 – Distribution of background sound levels (Night-time) - Location P3



1.4.22 A summary of measured sound levels is provided in Table 1.3.

Table 1.3 – Summary of measured sound levels – P3

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 24 - 57 Average: 52	Range: 40 - 85 Typical: 55	Range: 24 - 57 Average: 42 Mode: 50
Night	Range: 19 - 47 Average: 45	Range: 30 - 72 Typical: 55	Range: 22 - 50 Average: 38 Mode: 37

Representative background sound levels

1.4.23 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P3:

- Daytime: 40 dB L_{A90}; and
- Night-time: 34 dB L_{A90}.

Location P4

1.4.24 A photograph of survey location P4 is provided in Image 1.13.

Image 1.13 – North Humber to High Marnham Survey Location P4 Set Up Picture



1.4.25 The survey location is as follows:

- Easting/Northing: 484409/425743;
- What3words (what3words, 2026): lookout.bedroom.scrapping; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 14153; and
- Acoustic Calibrator: 01dB Cal31 82830.

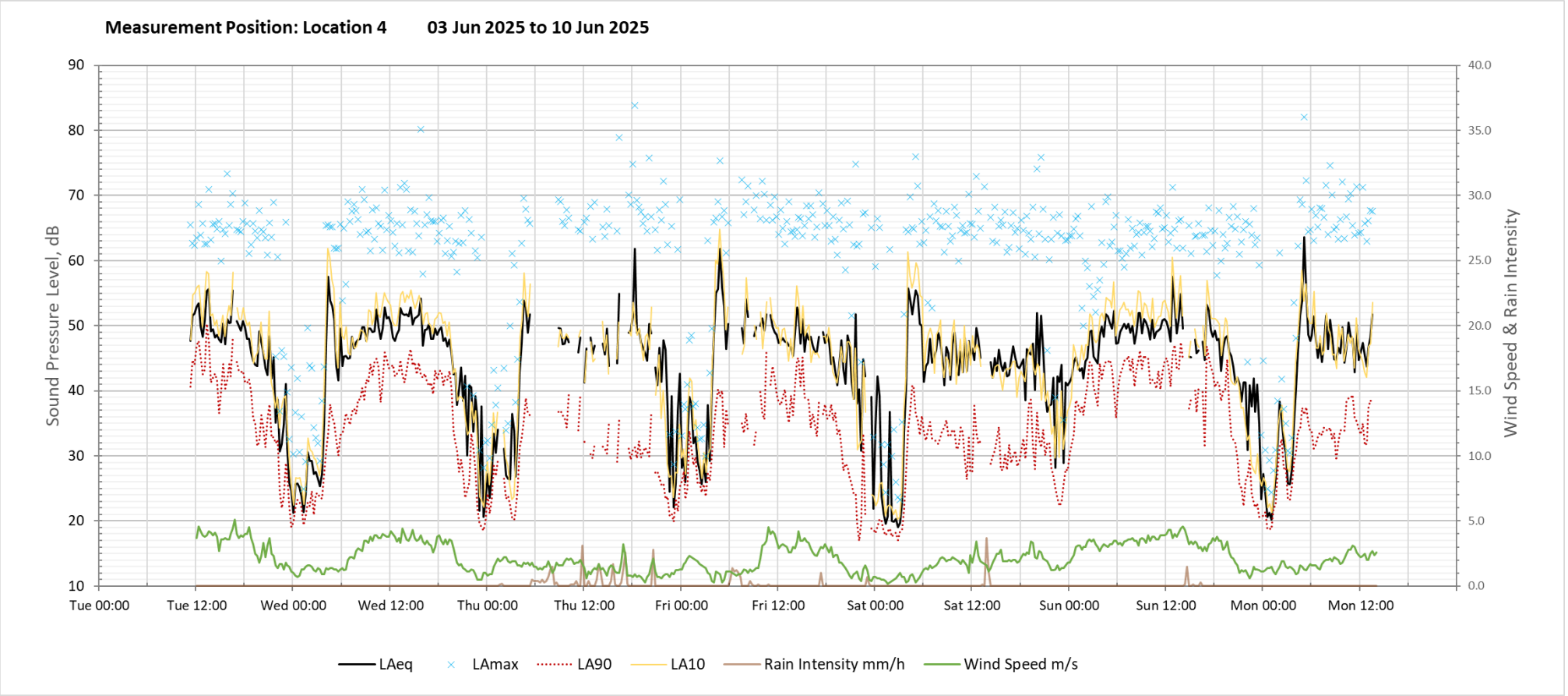
Details of the Noise climate

1.4.26 The noise climate at monitoring location P4 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from the nearby Cosgrove truck services.

Survey Results

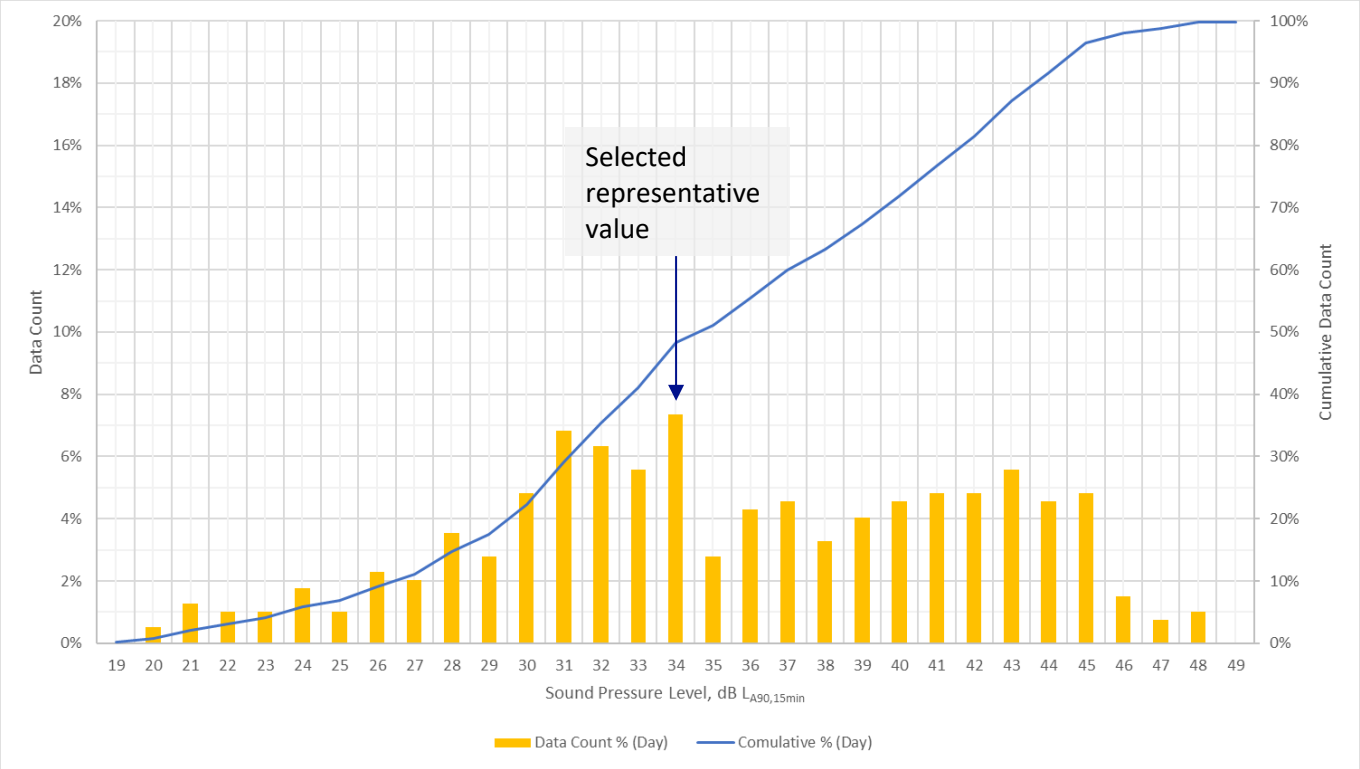
1.4.27 The temporal variation in sound level during the survey period is shown in Image 1.14.

Image 1.14 – Survey variation in sound levels - Location P4



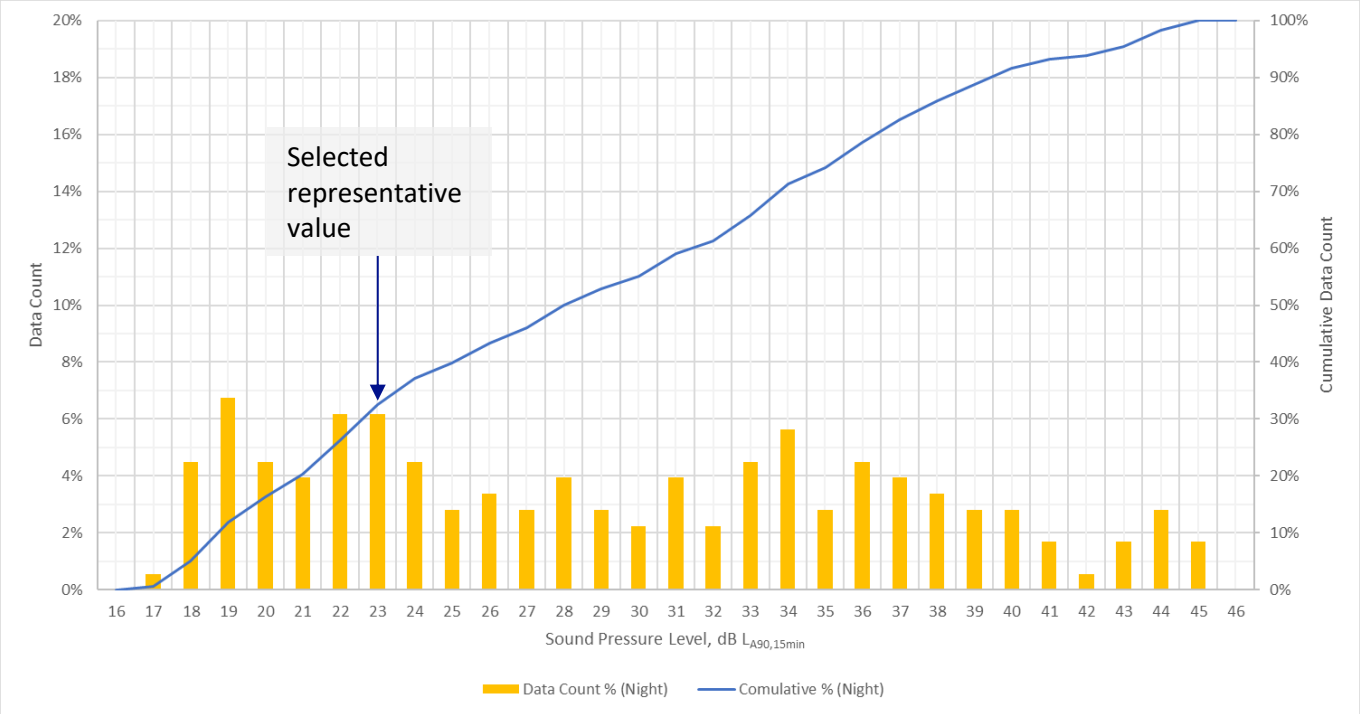
1.4.28 The distribution of background sound level levels during daytime periods is shown in Image 1.15.

Image 1.15 – Distribution of background sound levels (Daytime) - Location P4



1.4.29 The distribution of background sound level levels during night-time periods is shown in Image 1.16.

Image 1.16 – Distribution of background sound levels (Night-time) - Location P4



1.4.30 A summary of measured sound levels is provided in Table 1.4.

Table 1.4 – Summary of measured sound levels – P4

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 25 - 62 Average: 49	Range: 33 - 84 Typical: 65	Range: 20 - 48 Average: 35 Mode: 34
Night	Range: 19 - 64 Average: 49	Range: 23 - 82 Typical: 65	Range: 17 - 45 Average: 28 Mode: 19

Representative background sound levels

1.4.31 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P4:

- Daytime: 34 dB L_{A90}; and
- Night-time: 23 dB L_{A90}.

Location P5

1.4.32 A photograph of survey location P5 is provided in Image 1.17.

Image 1.17 – North Humber to High Marnham Survey Location P5 Set Up Picture



1.4.33 The survey location is as follows:

- Easting/Northing: 482427/423029;
- What3words (what3words, 2026): sundial.they.fetches; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 12083; and
- Acoustic Calibrator: 01dB Cal31 82830.

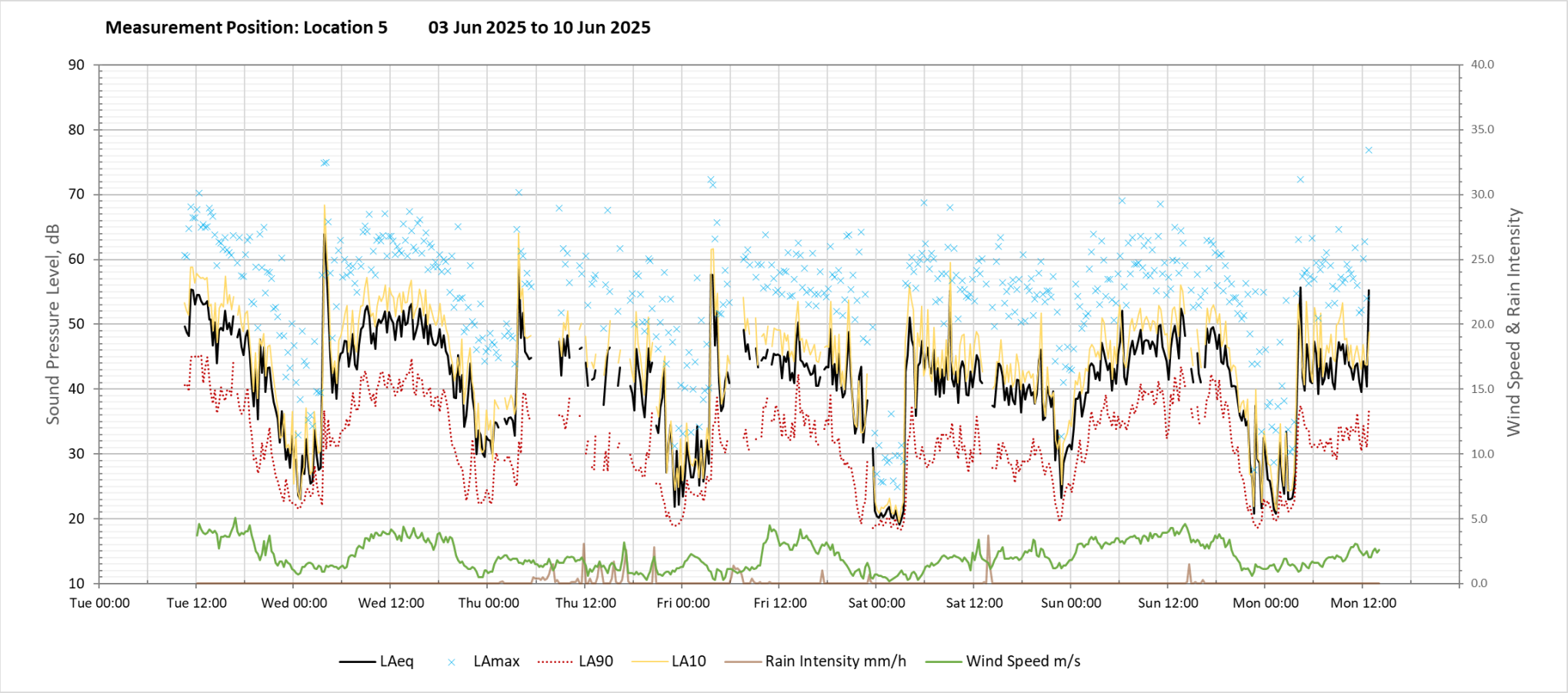
Details of the Noise climate

1.4.34 The noise climate at monitoring location P5 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

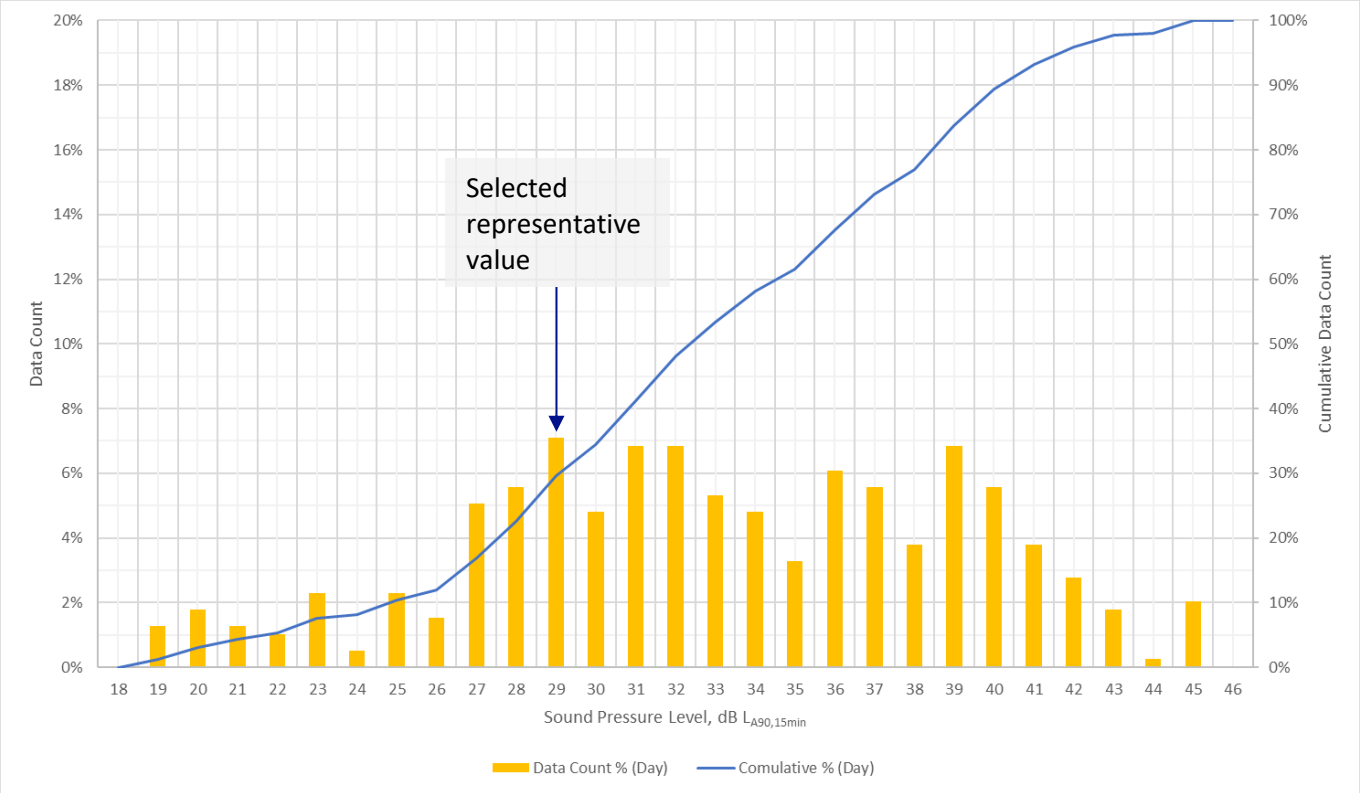
1.4.35 The temporal variation in sound level during the survey period is shown in Image 1.18.

Image 1.18 – Survey variation in sound levels - Location P5



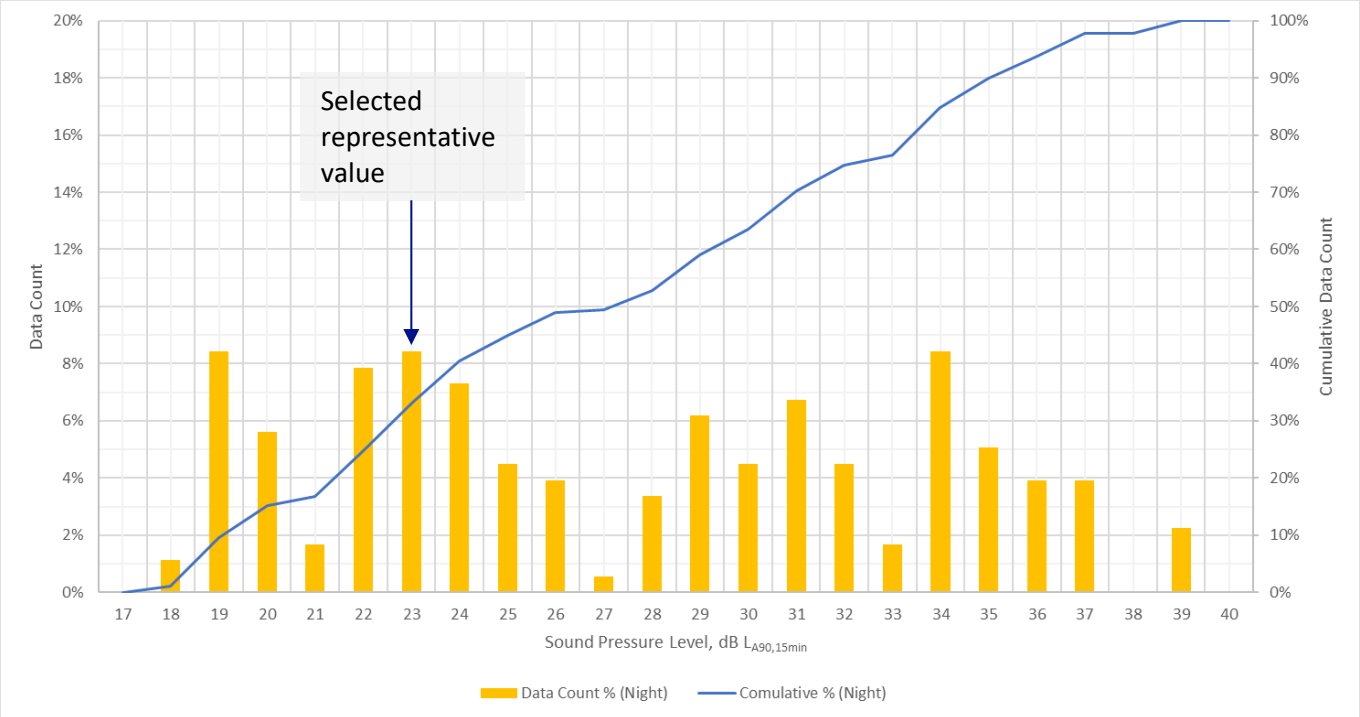
1.4.36 The distribution of background sound level levels during daytime periods is shown in Image 1.19.

Image 1.19 – Distribution of background sound levels (Daytime) - Location P5



1.4.37 The distribution of background sound level levels during night-time periods is shown in Image 1.20.

Image 1.20 – Distribution of background sound levels (Night-time) - Location P5



1.4.38 A summary of measured sound levels is provided in Table 1.5.

Table 1.5 – Summary of measured sound levels – P5

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 21 - 55 Average: 46	Range: 28 - 77 Typical: 60	Range: 19 - 45 Average: 33 Mode: 29
Night	Range: 19 - 64 Average: 47	Range: 25 - 75 Typical: 50	Range: 18 - 39 Average: 27 Mode: 19/23

Representative background sound levels

1.4.39 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P5:

- Daytime: 29 dB L_{A90}; and
- Night-time: 23 dB L_{A90}.

Location P6

1.4.40 A photograph of survey location P6 is provided in Image 1.21.

Image 1.21 – North Humber to High Marnham Survey Location P6 Set Up Picture



1.4.41 The survey location is as follows:

- Easting/Northing: 478668/412053;
- What3words (what3words, 2026): farmland.structure.done; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 14941; and
- Acoustic Calibrator: 01dB Cal31 82830.

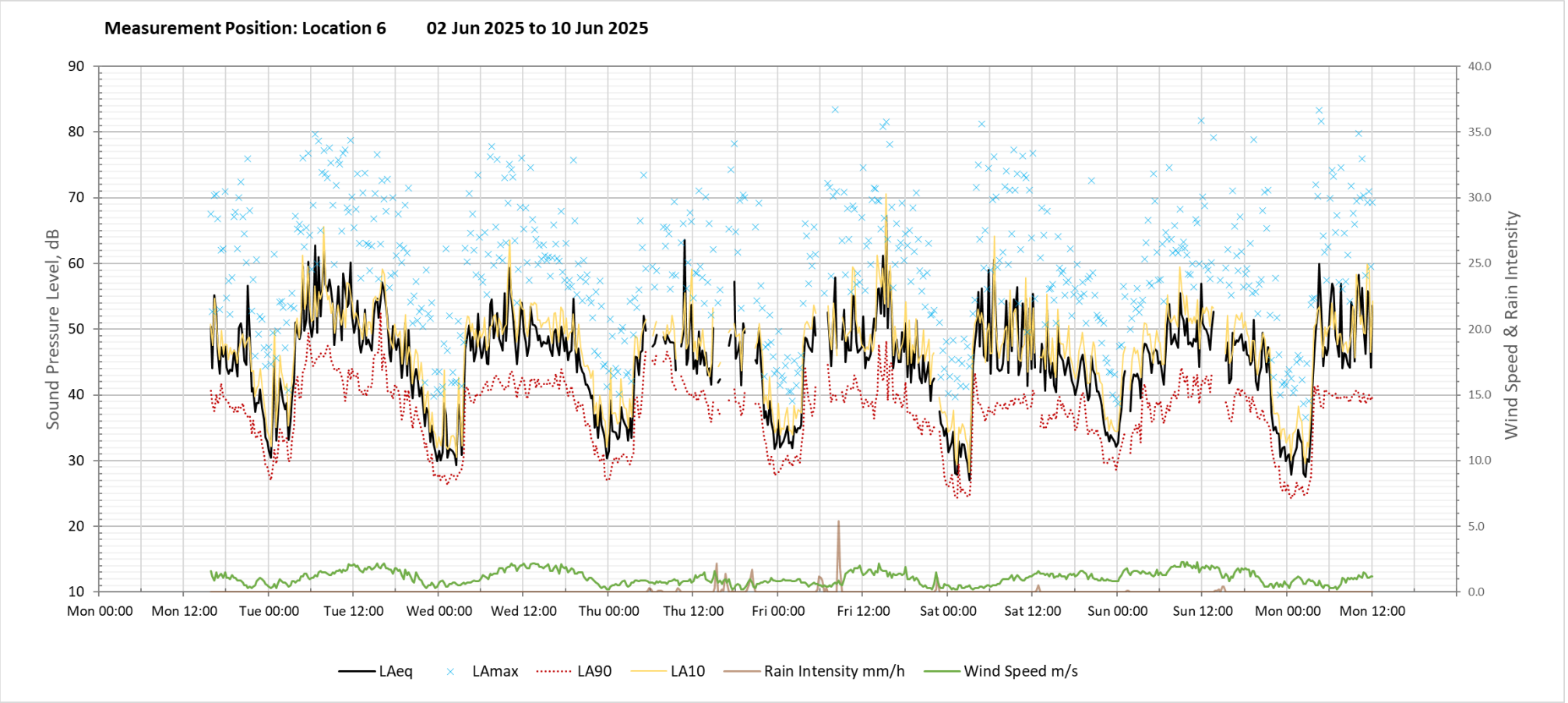
Details of the Noise climate

1.4.42 The noise climate at monitoring location P6 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources and rail noise to the south of the monitoring location.

Survey Results

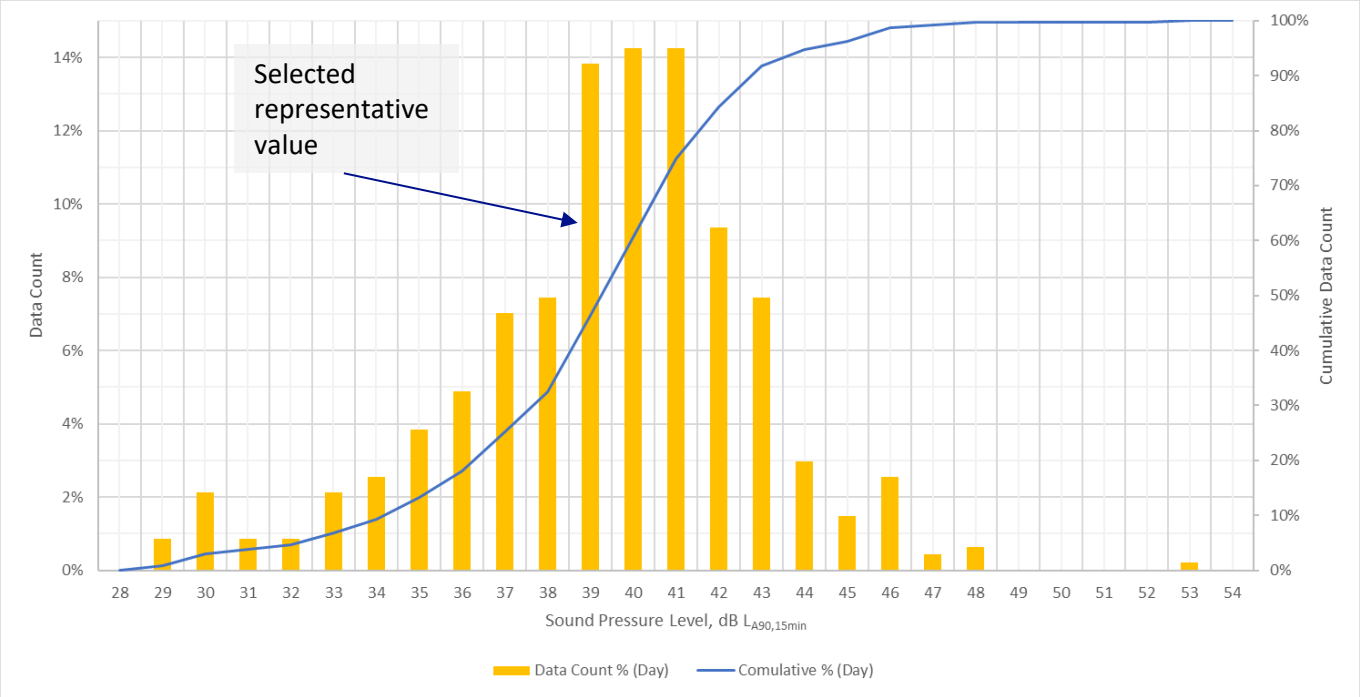
1.4.43 The temporal variation in sound level during the survey period is shown in Image 1.22.

Image 1.22 – Survey variation in sound levels - Location P6



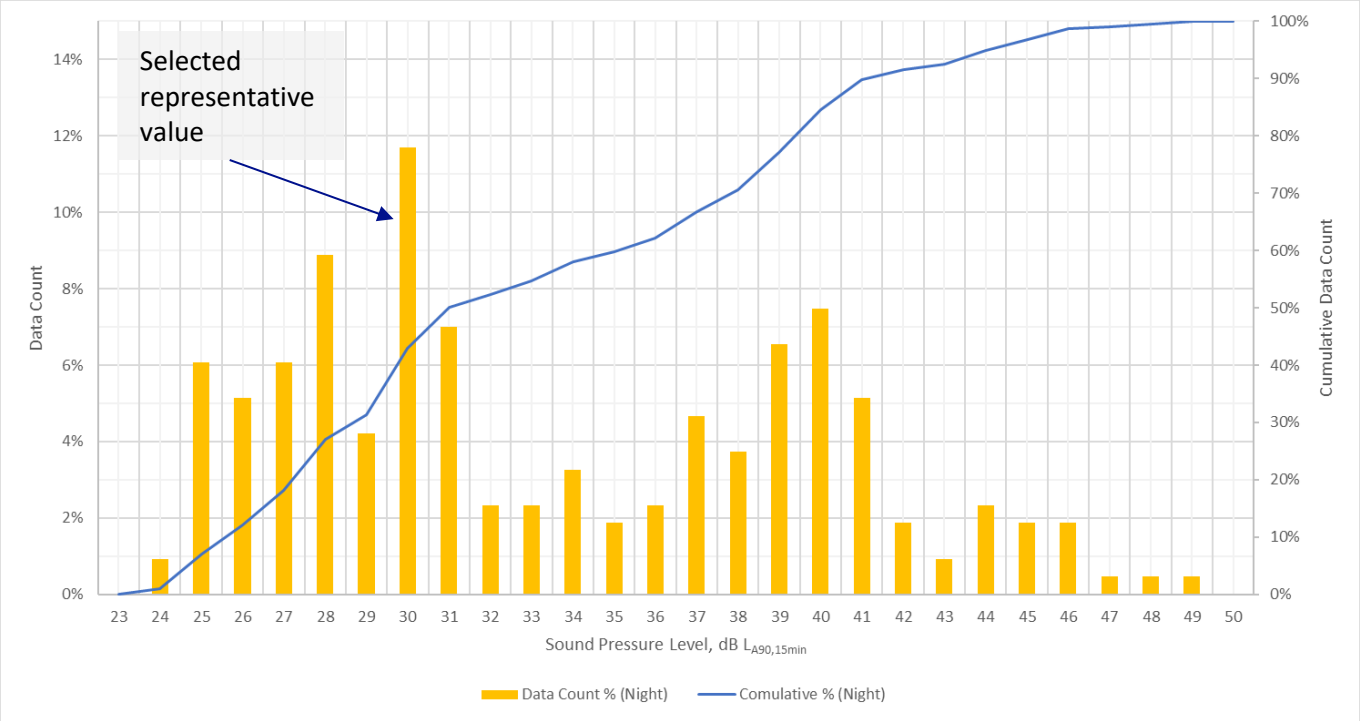
1.4.44 The distribution of background sound level levels during daytime periods is shown in Image 1.23.

Image 1.23 – Distribution of background sound levels (Daytime) - Location P6



1.4.45 The distribution of background sound level levels during night-time periods is shown in Image 1.24.

Image 1.24 – Distribution of background sound levels (Night-time) - Location P6



1.4.46 A summary of measured sound levels is provided in Table 1.6.

Table 1.6 – Summary of measured sound levels – P6

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 33 - 67 Average: 51	Range: 42 - 91 Typical: 65	Range: 29 - 53 Average: 39 Mode: 40
Night	Range: 27 - 63 Average: 48	Range: 37 - 81 Typical: 55	Range: 24 - 49 Average: 32 Mode: 30

Representative background sound levels

1.4.47 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P6:

- Daytime: 39 dB L_{A90}; and
- Night-time: 30 dB L_{A90}.

Location P7

1.4.48 A photograph of survey location P7 is provided in Image 1.25.

Image 1.25 – North Humber to High Marnham Survey Location P7 Set Up Picture



1.4.49 The survey location is as follows:

- Easting/Northing: 480121/402262;
- What3words (what3words, 2026): chose.dolly.fans; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 11891; and
- Acoustic Calibrator: 01dB Cal31 82830.

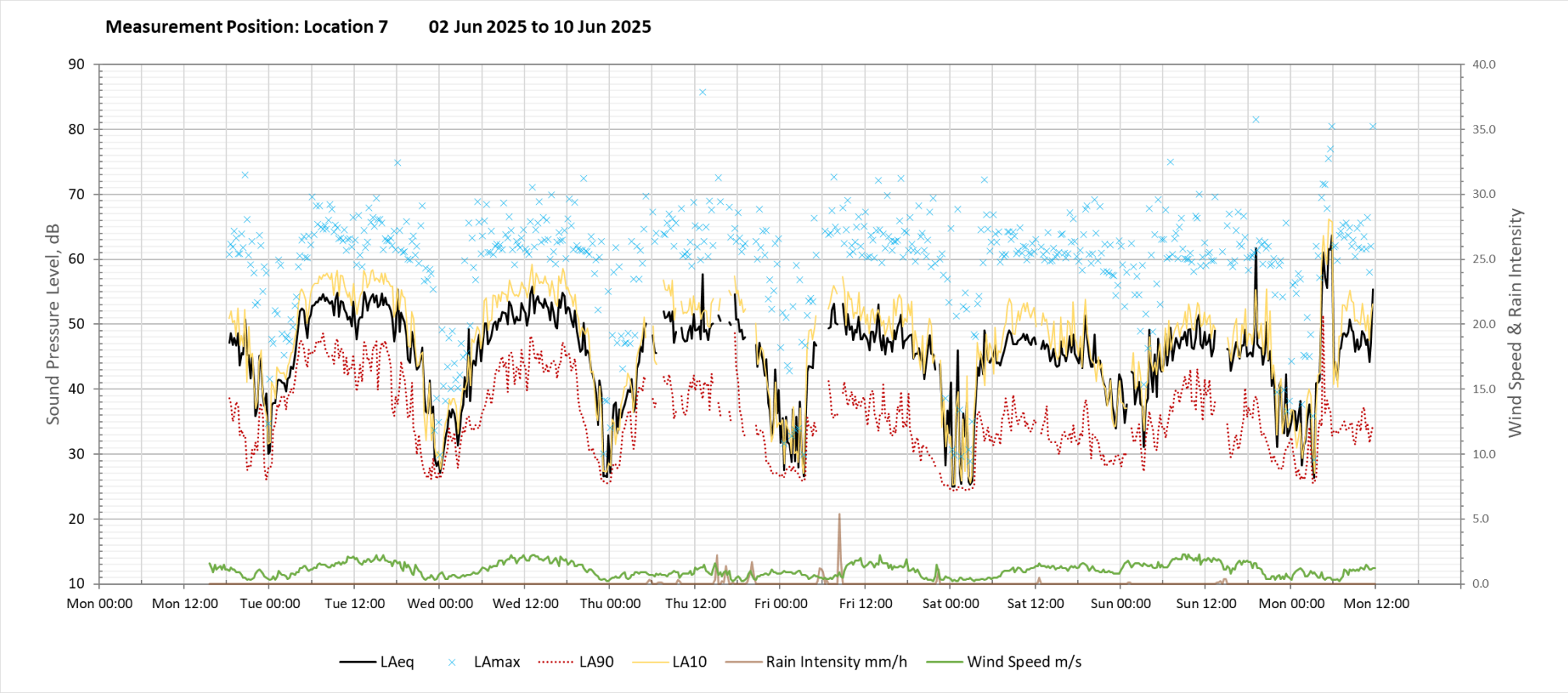
Details of the Noise climate

1.4.50 The noise climate at monitoring location P7 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

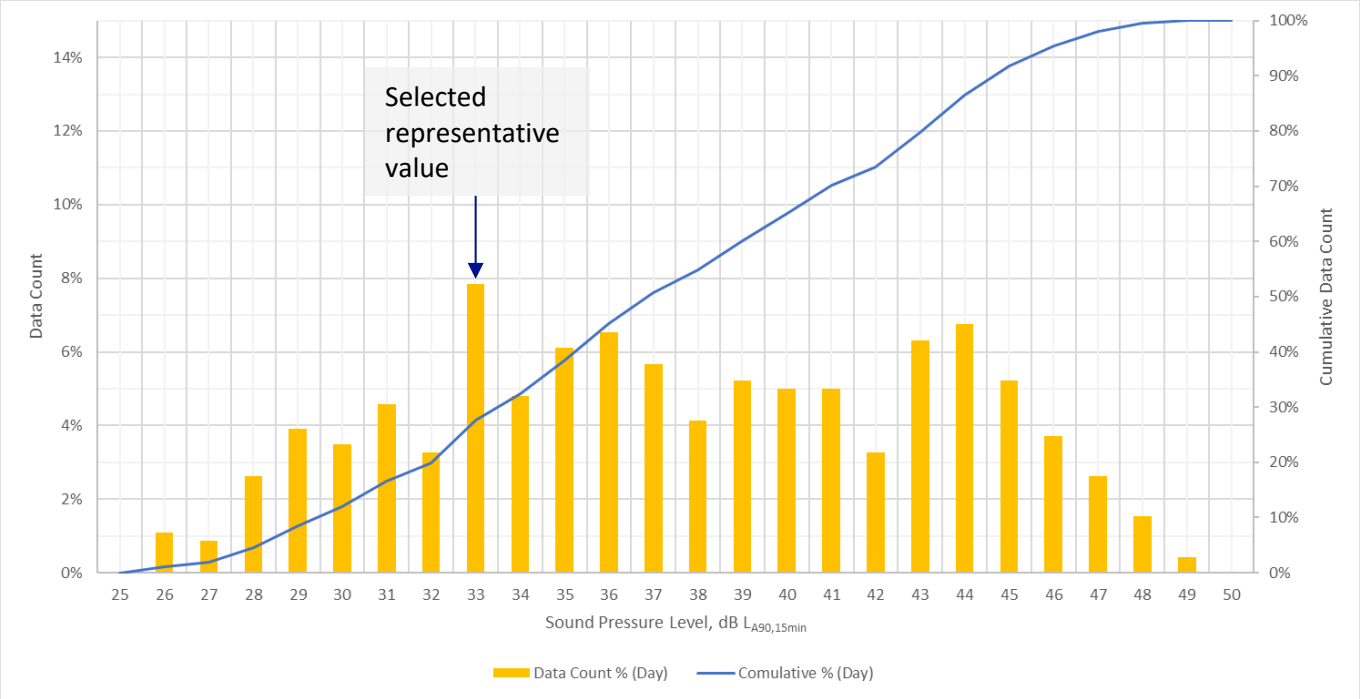
1.4.51 The temporal variation in sound level during the survey period is shown in Image 1.26.

Image 1.26 – Survey variation in sound levels - Location P7



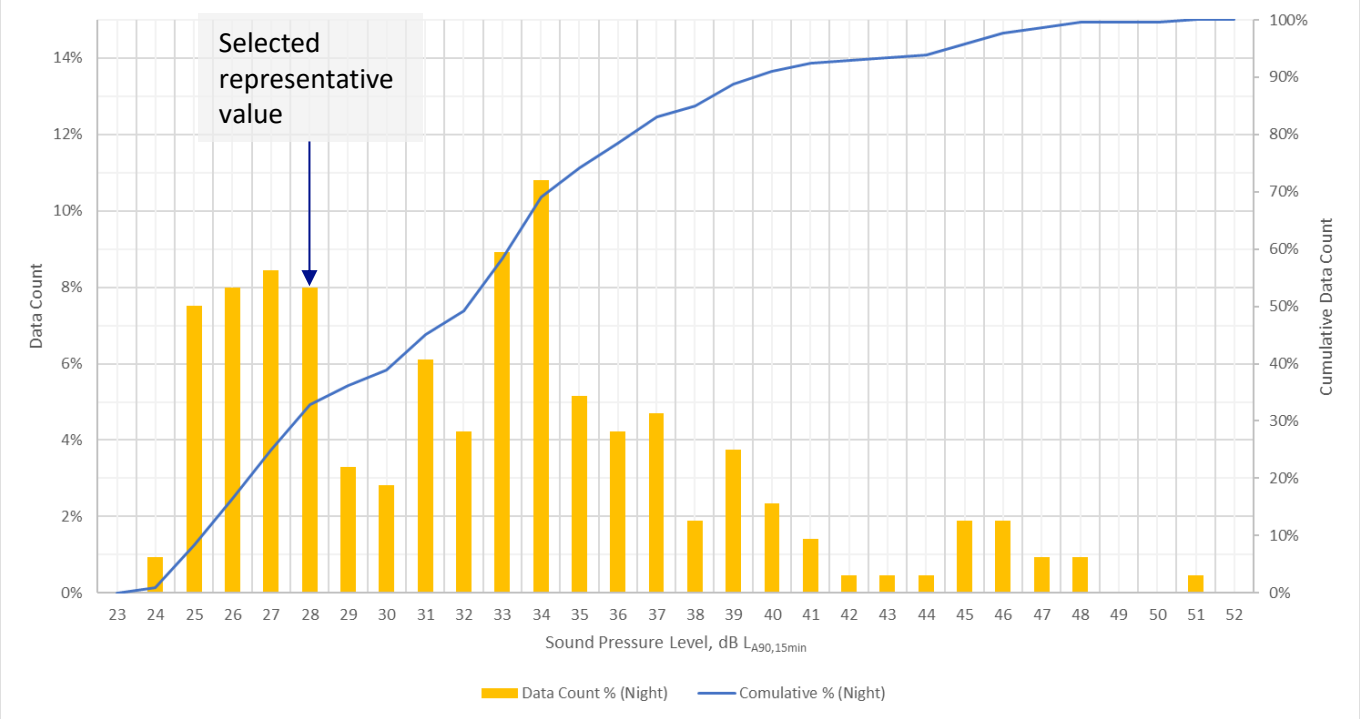
1.4.52 The distribution of background sound level levels during daytime periods is shown in Image 1.27.

Image 1.27 – Distribution of background sound levels (Daytime) - Location P7



1.4.53 The distribution of background sound level levels during night-time periods is shown in Image 1.28.

Image 1.28 – Distribution of background sound levels (Night-time) - Location P7



1.4.54 A summary of measured sound levels is provided in Table 1.7.

Table 1.7 – Summary of measured sound levels – P7

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 31 - 62 Average: 49	Range: 40 - 86 Typical: 65	Range: 26 - 49 Average: 37 Mode: 33
Night	Range: 25 - 64 Average: 48	Range: 29 - 72 Typical: 50	Range: 24 - 51 Average: 33 Mode: 34

Representative background sound levels

1.4.55 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P7:

- Daytime: 33 dB L_{A90}; and
- Night-time: 28 dB L_{A90}.

Location P8

1.4.56 A photograph of survey location P8 is provided in Image 1.29.

Image 1.29 – North Humber to High Marnham Survey Location P8 Set Up Picture



1.4.57 The survey location is as follows:

- Easting/Northing: 479089/398750;
- What3words (what3words, 2026): bliss.palettes.bulky; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 10325; and
- Acoustic Calibrator: 01dB Cal31 82830.

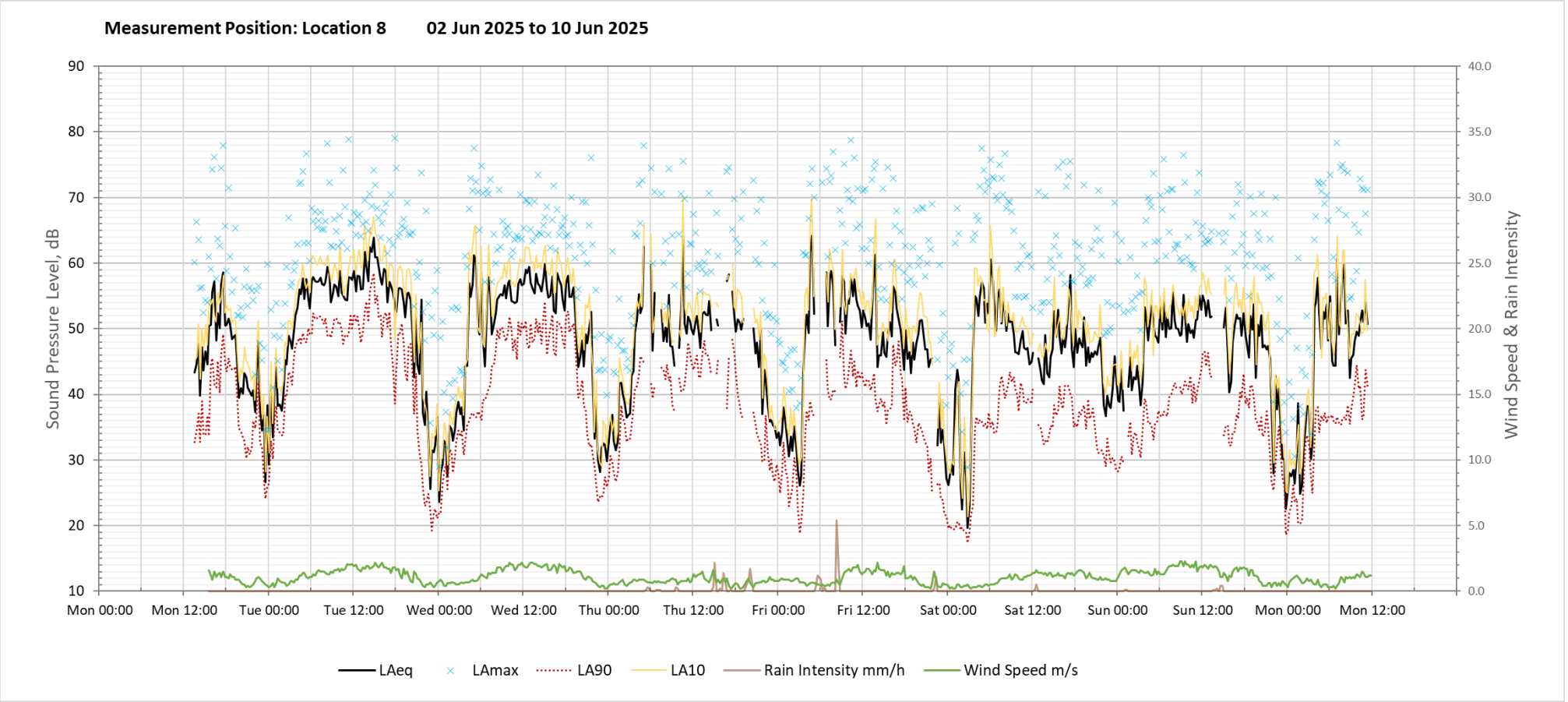
Details of the Noise climate

1.4.58 The noise climate at monitoring location P8 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

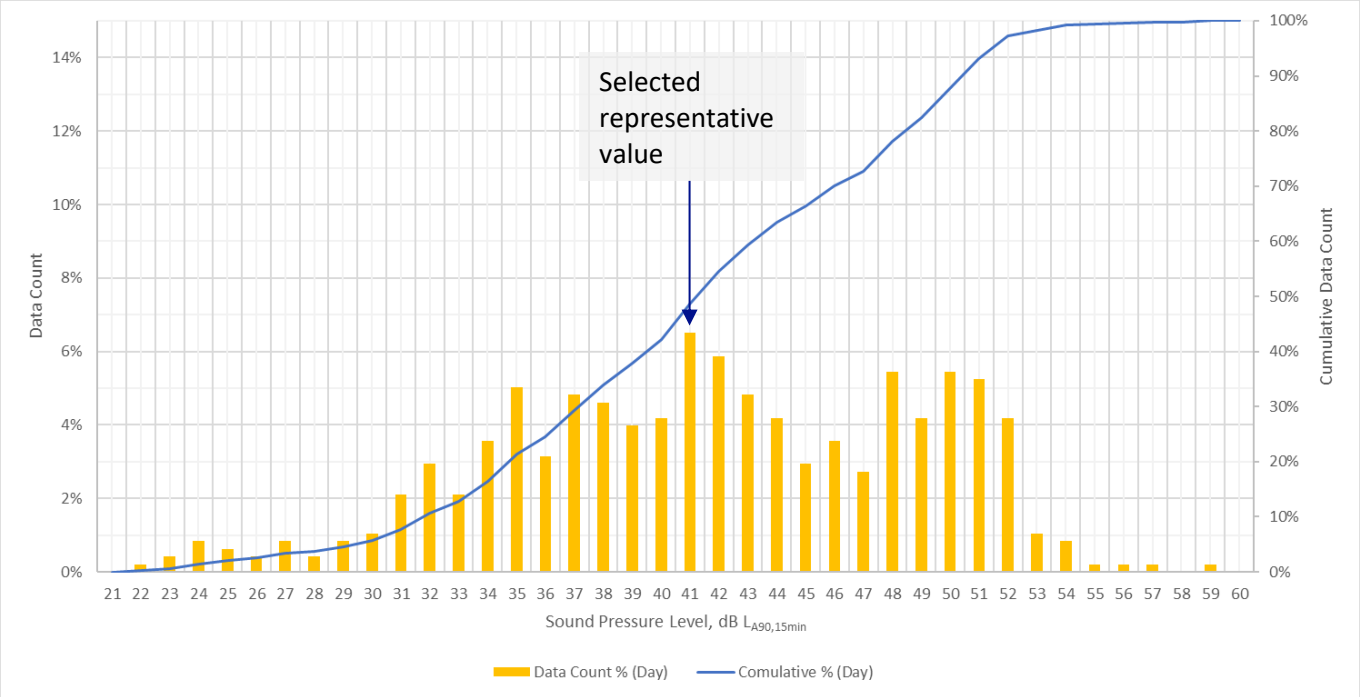
1.4.59 The temporal variation in sound level during the survey period is shown in Image 1.30.

Image 1.30 – Survey variation in sound levels - Location P8



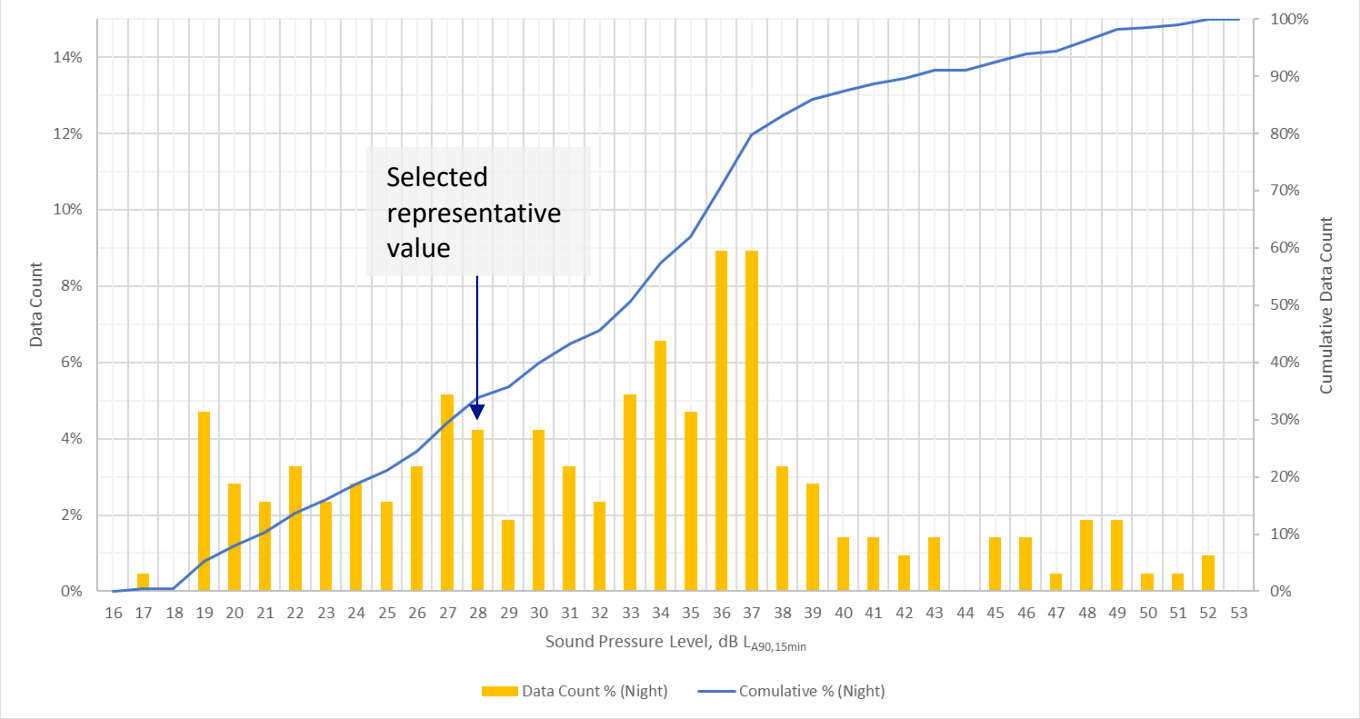
1.4.60 The distribution of background sound level levels during daytime periods is shown in Image 1.31.

Image 1.31 – Distribution of background sound levels (Daytime) - Location P8



1.4.61 The distribution of background sound level levels during night-time periods is shown in Image 1.32.

Image 1.32 – Distribution of background sound levels (Night-time) - Location P8



1.4.62 A summary of measured sound levels is provided in Table 1.8.

Table 1.8 – Summary of measured sound levels – P8

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 26 - 64 Average: 54	Range: 36 - 79 Typical: 65	Range: 22 - 59 Average: 41 Mode: 41
Night	Range: 20 - 64 Average: 52	Range: 29 - 78 Typical: 55	Range: 17 - 52 Average: 34 Mode: 36

Representative background sound levels

1.4.63 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P8:

- Daytime: 41 dB L_{A90}; and
- Night-time: 28 dB L_{A90}.

Location P9

1.4.64 A photograph of survey location P9 is provided in Image 1.33.

Image 1.33 – North Humber to High Marnham Survey Location P9 Set Up Picture



1.4.65 The survey location is as follows:

- Easting/Northing: 476943/397139;
- What3words (what3words, 2026): bucked.crouches.unafraid; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 14145; and
- Acoustic Calibrator: 01dB Cal31 82830.

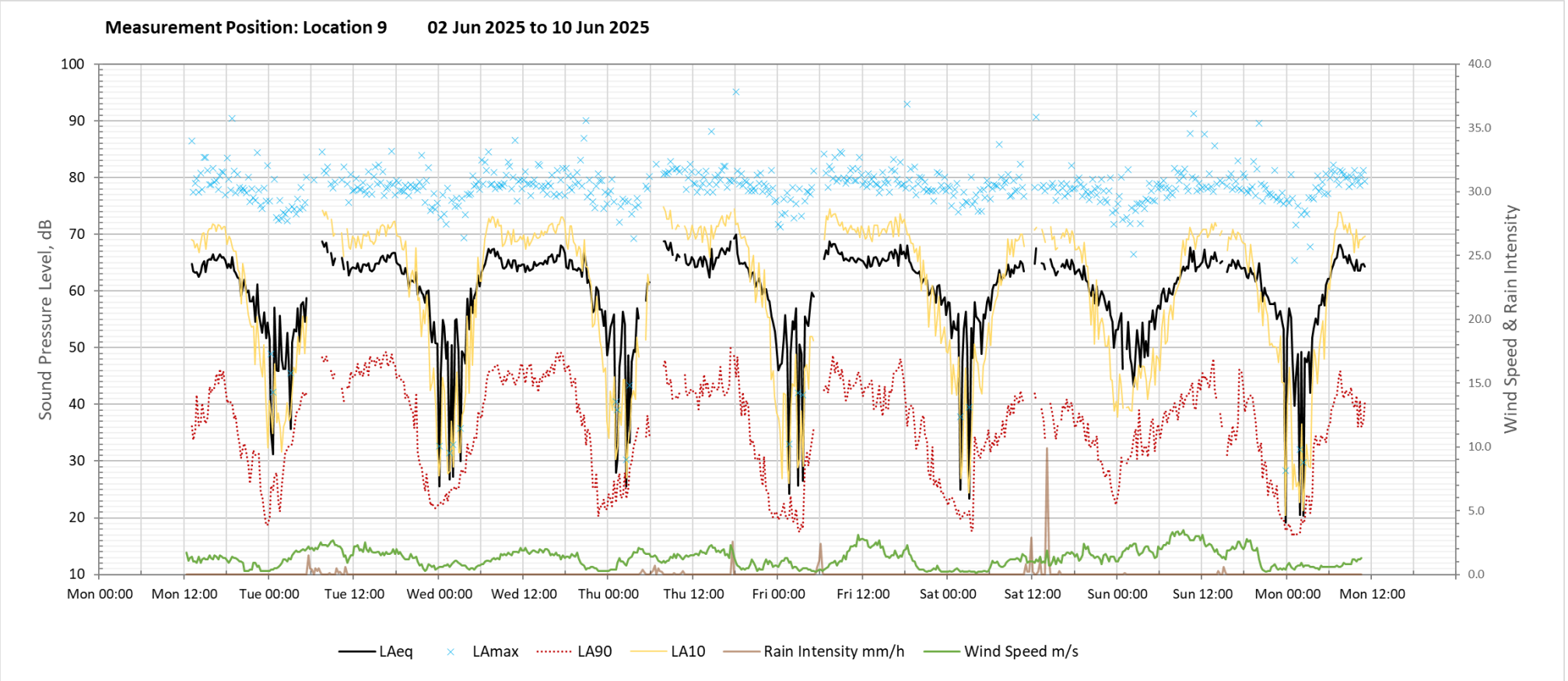
Details of the Noise climate

1.4.66 The noise climate at monitoring location P9 had main sources of rail noise from the tracks just north of the site, with contribution from distant road traffic sources.

Survey Results

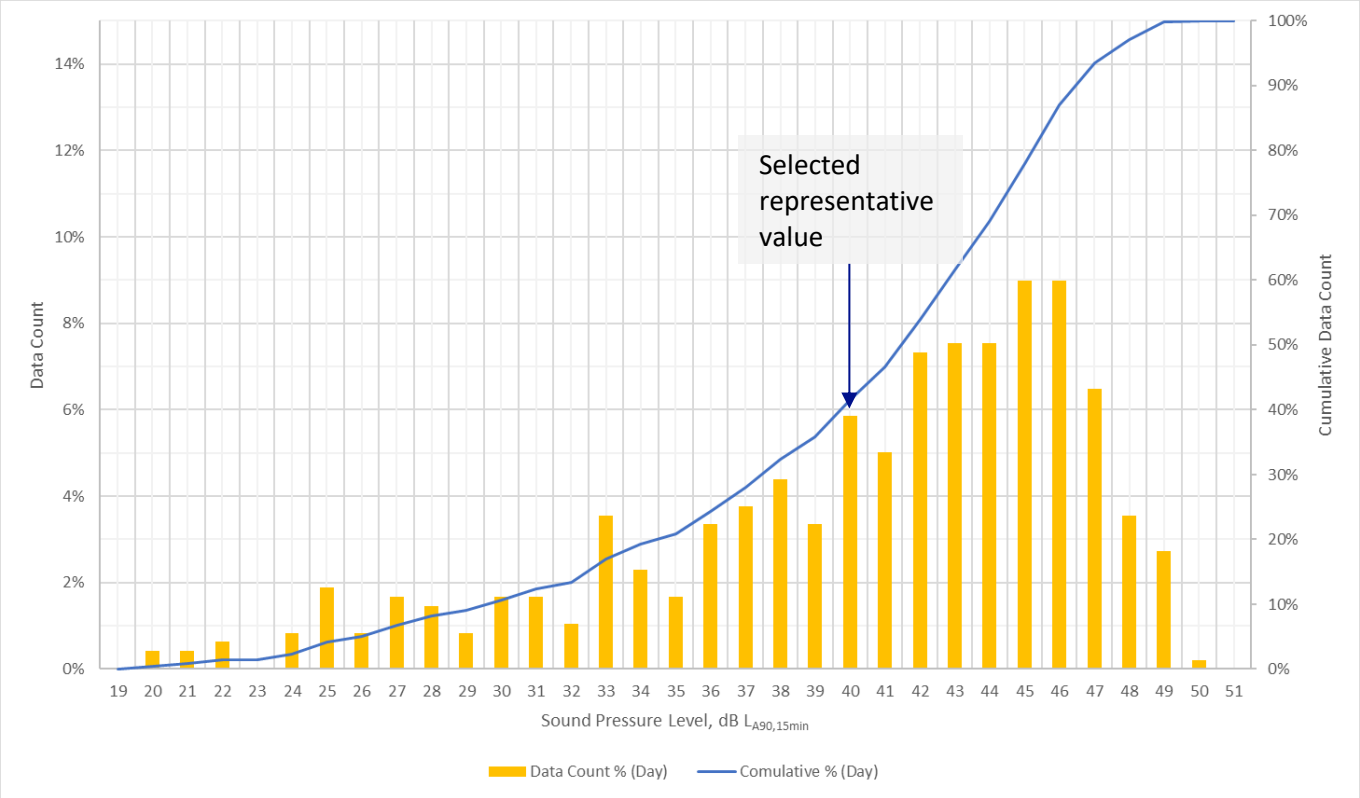
1.4.67 The temporal variation in sound level during the survey period is shown in Image 1.34.

Image 1.34 – Survey variation in sound levels - Location P9



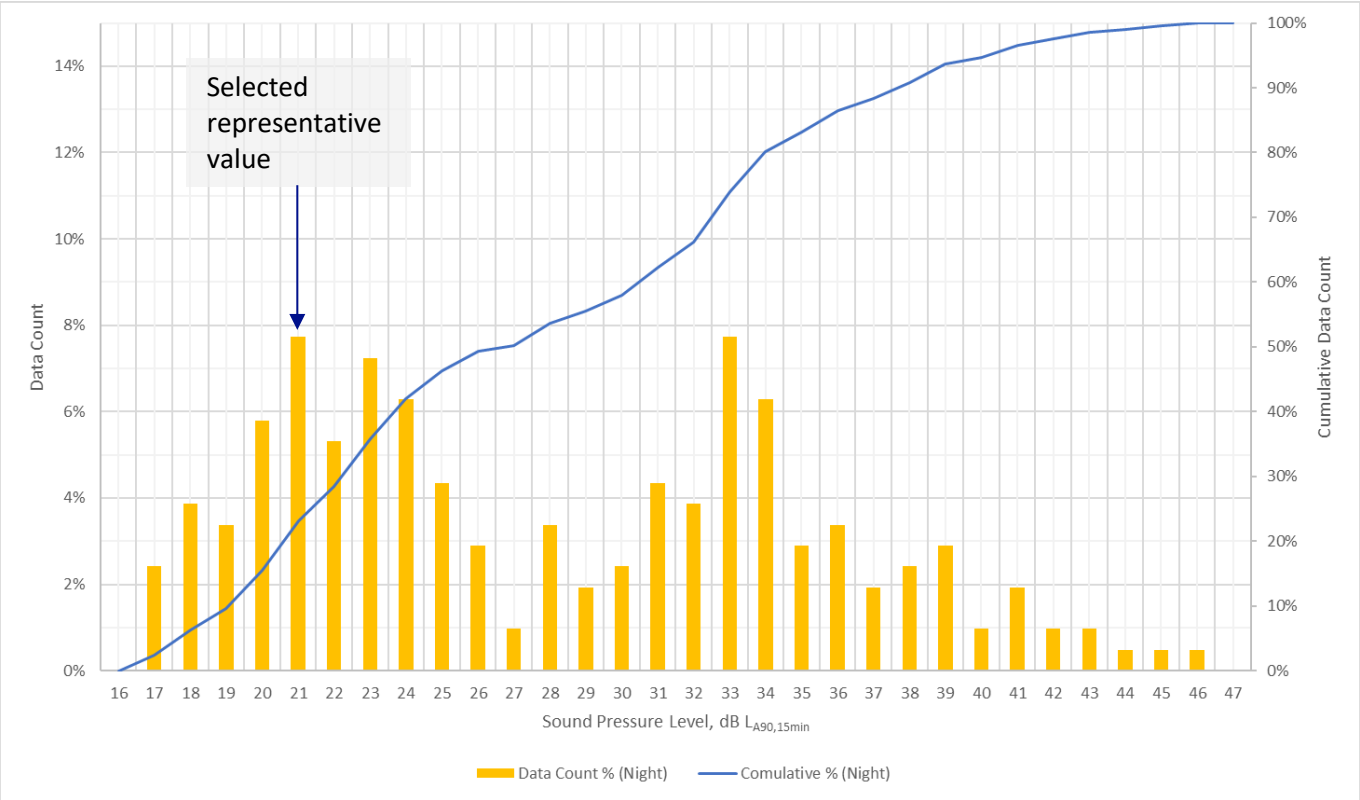
1.4.68 The distribution of background sound level levels during daytime periods is shown in Image 1.35.

Image 1.35 – Distribution of background sound levels (Daytime) - Location P9



1.4.69 The distribution of background sound level levels during night-time periods is shown in Image 1.36.

Image 1.36 – Distribution of background sound levels (Night-time) - Location P9



1.4.70 A summary of measured sound levels is provided in Table 1.9.

Table 1.9 – Summary of measured sound levels – P9

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 53 - 70 Average: 65	Range: 74 - 95 Typical: 79	Range: 20 - 50 Average: 42 Mode: 45
Night	Range: 19 - 69 Average: 57	Range: 28 - 83 Typical: 76	Range: 17 - 46 Average: 25 Mode: 21

Representative background sound levels

1.4.71 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P9:

- Daytime: 40 dB L_{A90}; and
- Night-time: 21 dB L_{A90}.

Location P10

1.4.72 A photograph of survey location P10 is provided in Image 1.37.

Image 1.37 – North Humber to High Marnham Survey Location P10 Set Up Picture



1.4.73 The survey location is as follows:

- Easting/Northing: 478212/384867;
- What3words (what3words, 2026): reinvest.fund.playing; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 14146; and
- Acoustic Calibrator: 01dB Cal31 82830.

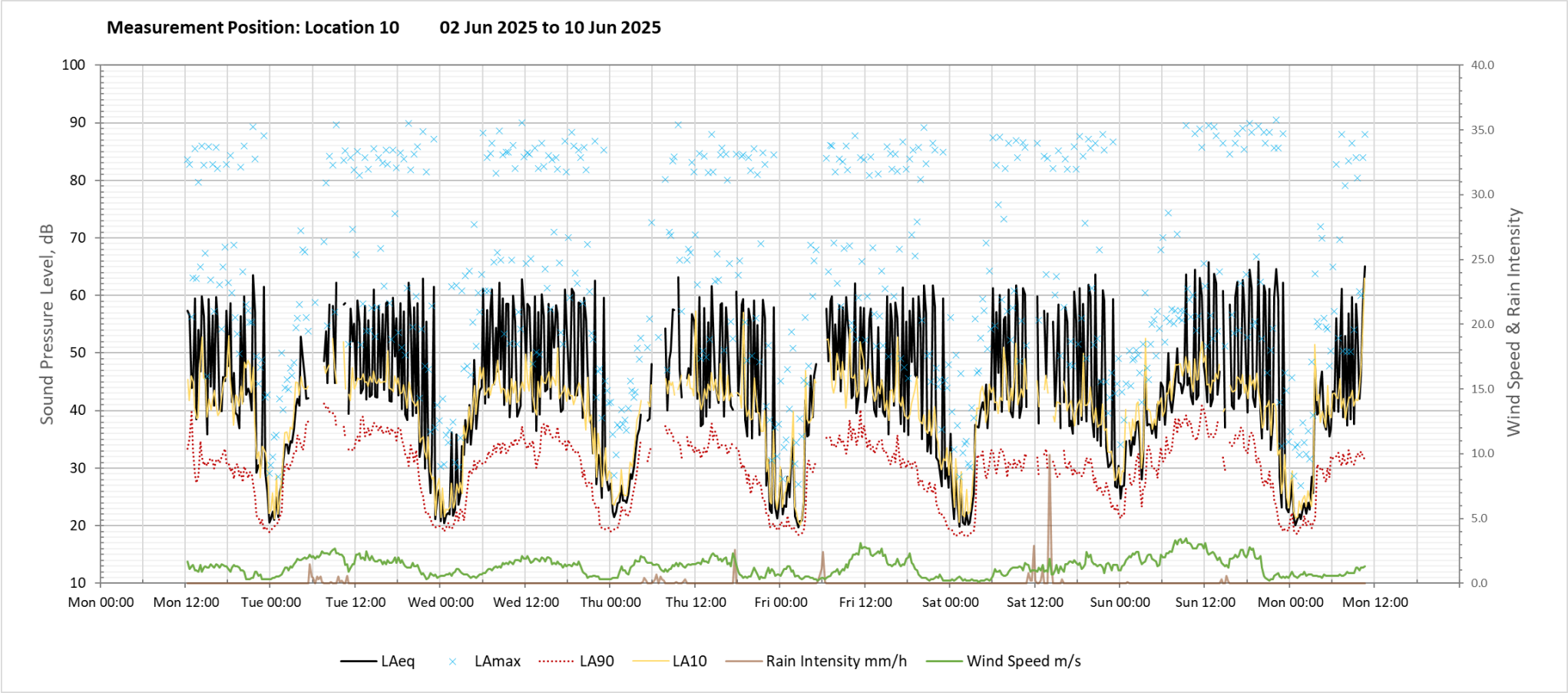
Details of the Noise climate

1.4.74 The noise climate at monitoring location P10 had main sources of rail noise from the tracks running adjacent of the site with contribution from distant road traffic sources and nearby industrial traffic.

Survey Results

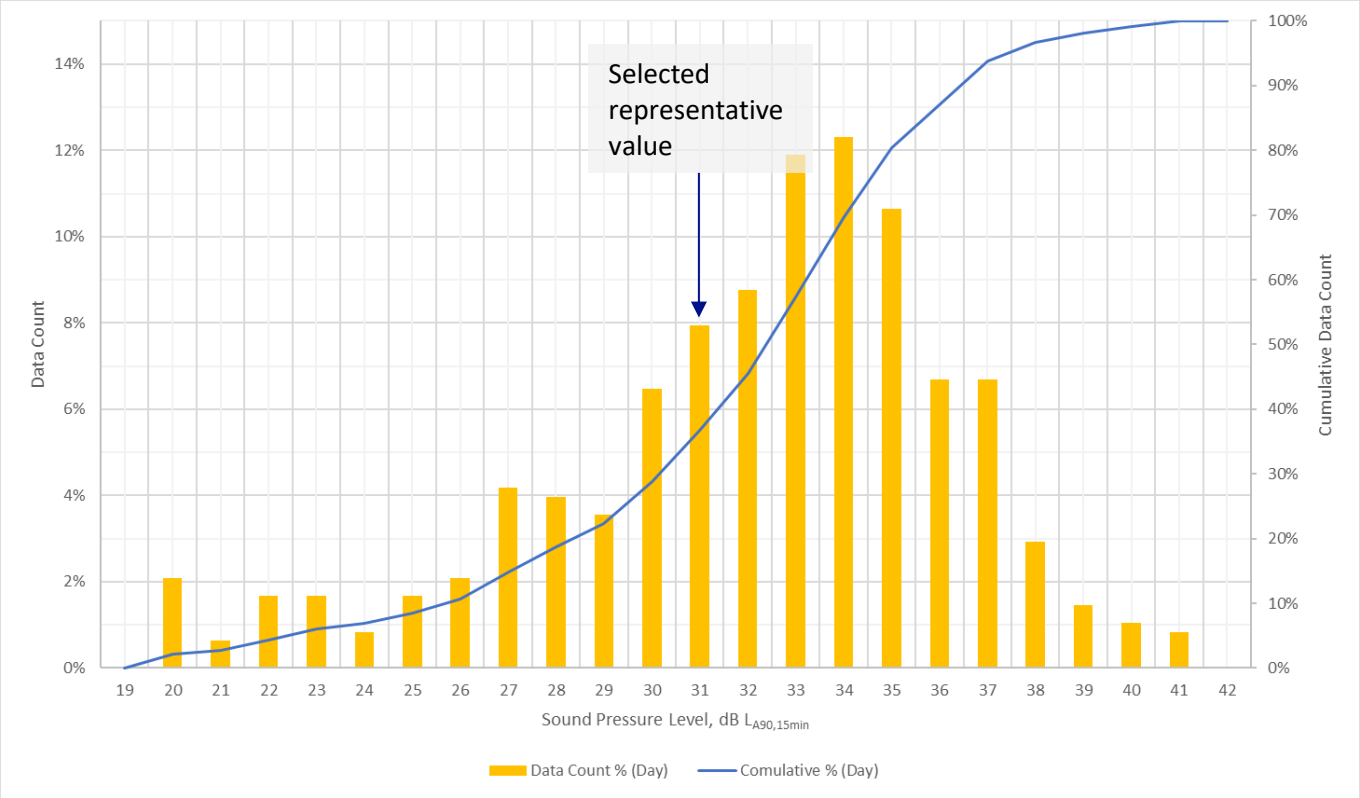
1.4.75 The temporal variation in sound level during the survey period is shown in Image 1.38.

Image 1.38 – Survey variation in sound levels - Location P10



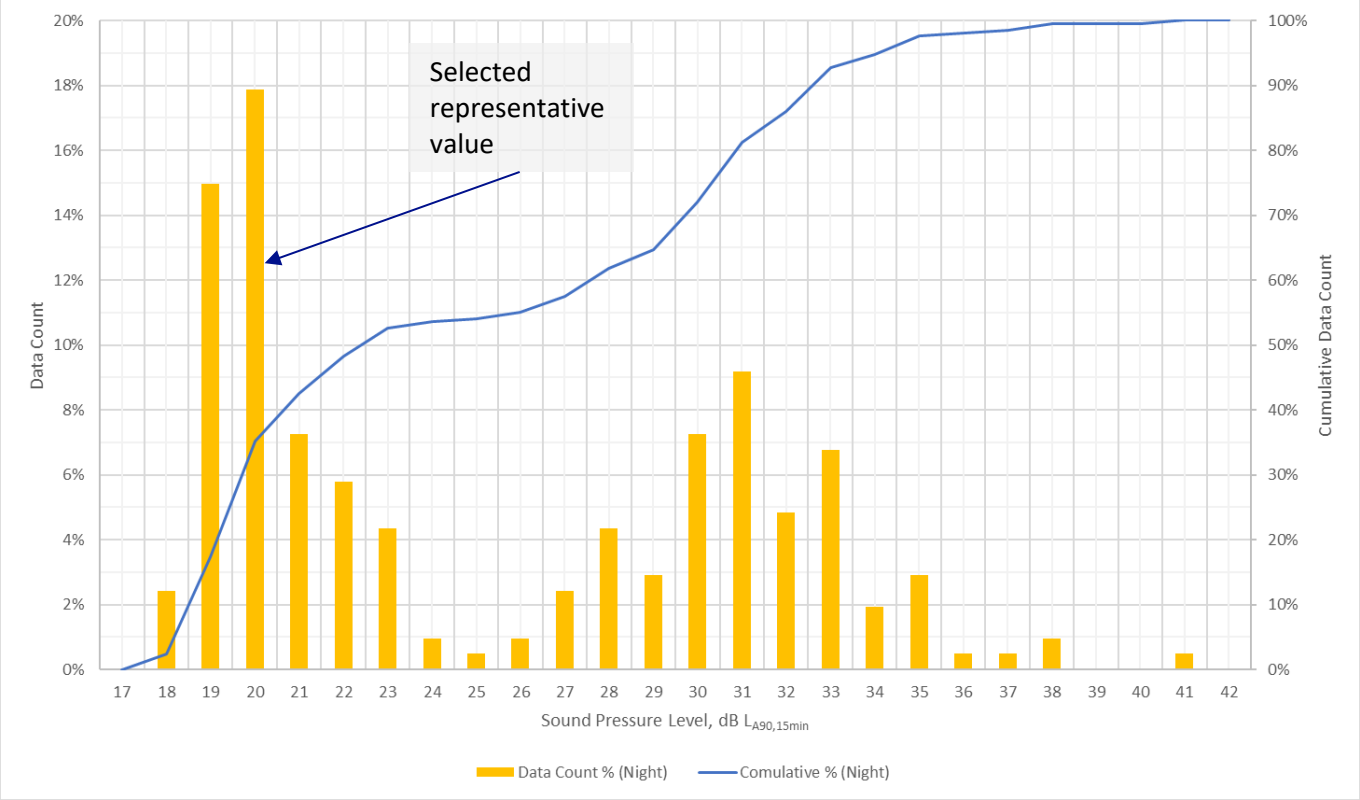
1.4.76 The distribution of background sound level levels during daytime periods is shown in Image 1.39.

Image 1.39 – Distribution of background sound levels (Daytime) - Location P10



1.4.77 The distribution of background sound level levels during night-time periods is shown in Image 1.40.

Image 1.40 – Distribution of background sound levels (Night-time) - Location P10



1.4.78 A summary of measured sound levels is provided in Table 1.10.

Table 1.10 – Summary of measured sound levels – P10

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 22 - 66 Average: 56	Range: 31 - 90 Typical: 84	Range: 20 - 41 Average: 32 Mode: 34
Night	Range: 22 - 61 Average: 48	Range: 27 - 88 Typical: 65	Range: 18 - 41 Average: 23 Mode: 20

Representative background sound levels

1.4.79 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P10:

- Daytime: 31 dB L_{A90}; and
- Night-time: 20 dB L_{A90}.

Location P11

1.4.80 A photograph of survey location P11 is provided in Image 1.41.

Image 1.41 – North Humber to High Marnham Survey Location P11 Set Up Picture



1.4.81 The survey location is as follows:

- Easting/Northing: 478243/384613;
- What3words (what3words, 2026): brain.stupidly.kindest; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion 12079; and
- Acoustic Calibrator: 01dB Cal31 82830.

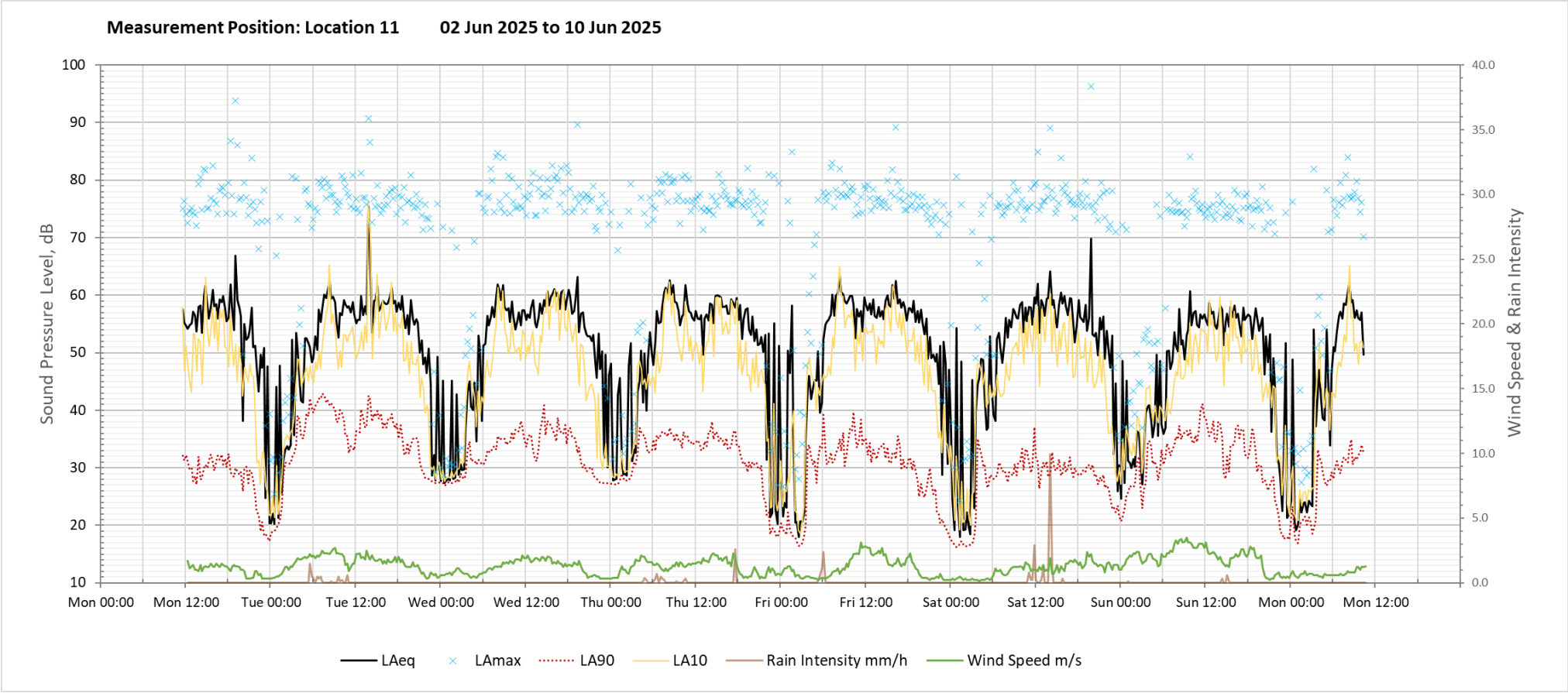
Details of the Noise climate

1.4.82 The noise climate at monitoring location P11 had main sources of rail noise from the tracks just west of the site, with contribution from road traffic sources.

Survey Results

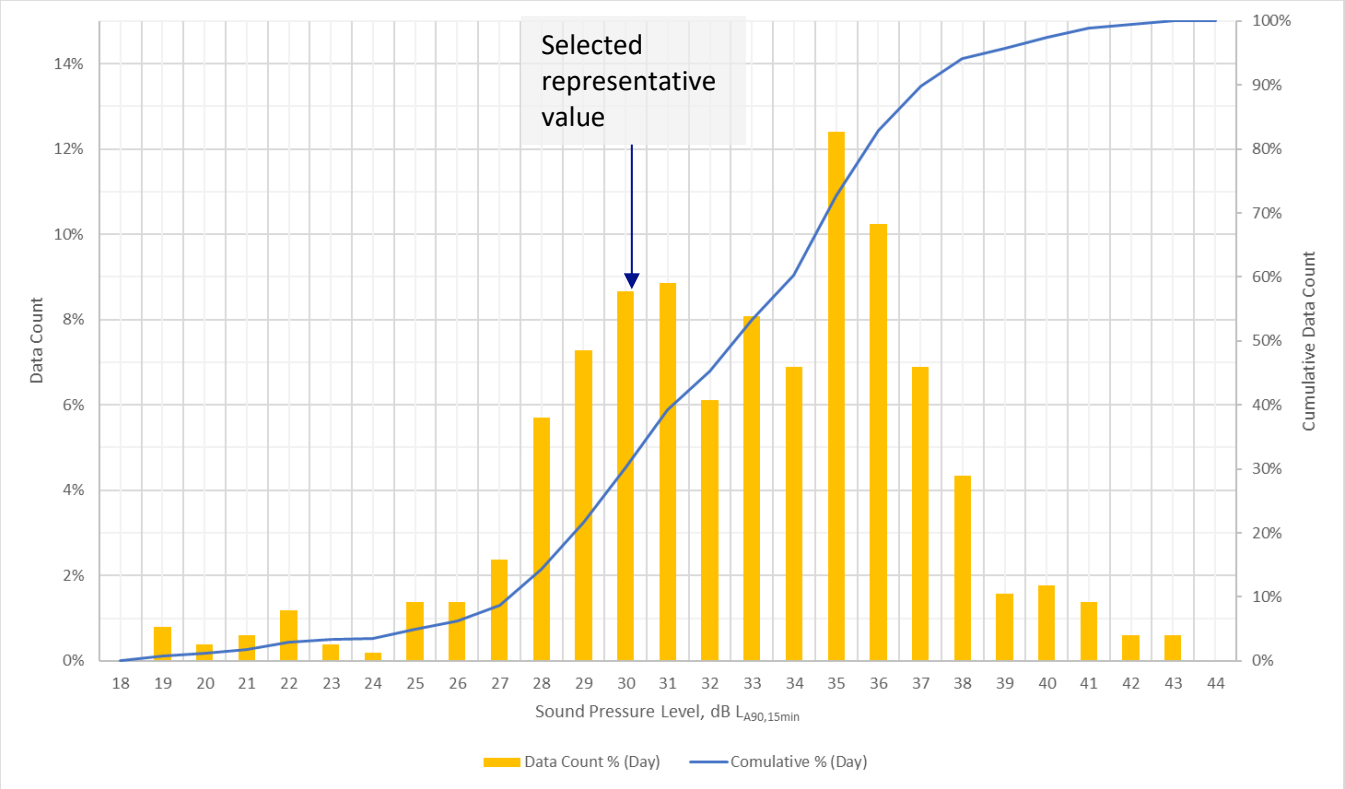
1.4.83 The temporal variation in sound level during the survey period is shown in Image 1.42.

Image 1.42 – Survey variation in sound levels - Location P11



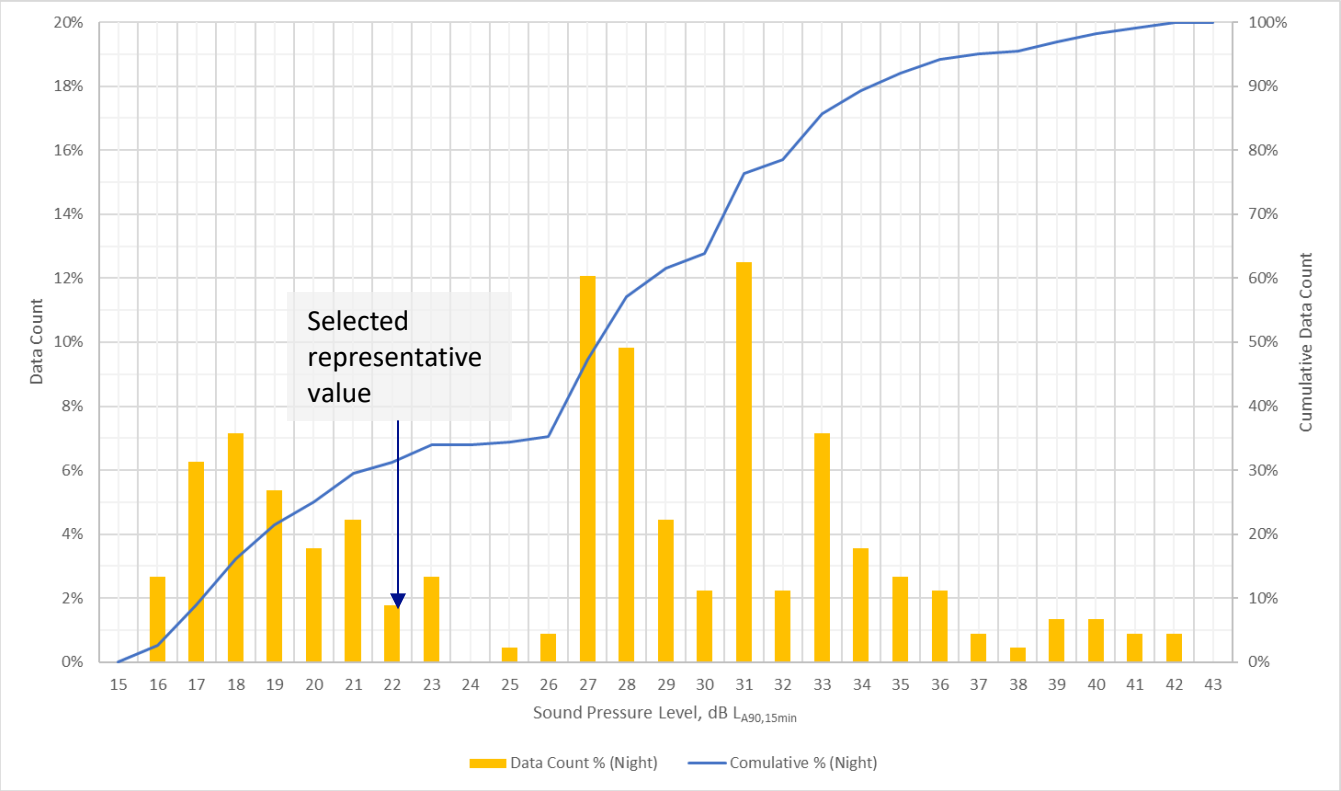
1.4.84 The distribution of background sound level levels during daytime periods is shown in Image 1.43.

Image 1.43 – Distribution of background sound levels (Daytime) - Location P11



1.4.85 The distribution of background sound level levels during night-time periods is shown in Image 1.44.

Image 1.44 – Distribution of background sound levels (Night-time) - Location P11



1.4.86 A summary of measured sound levels is provided in Table 1.11.

Table 1.11 – Summary of measured sound levels – P11

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	Range: 21 - 75 Average: 58	Range: 33 - 94 Typical: 75	Range: 19 - 43 Average: 33 Mode: 35
Night	Range: 18 - 60 Average: 48	Range: 24 - 81 Typical: 75	Range: 16 - 42 Average: 27 Mode: 31

Representative background sound levels

1.4.87 Based on the results of the survey, considering the average, modal and temporal variation in background sound level, the following representative background sound levels are applied at locations represented by P11:

- Daytime: 30 dB L_{A90}; and
- Night-time: 22 dB L_{A90}.

1.5 Ecology Noise Baseline Survey

Location E1

1.5.1 A photograph of survey location E1 is provided in Image 1.45.

Image 1.45 – Ecology Survey Location E1 Set Up Picture



1.5.2 The survey location is as follows:

- Easting/Northing: E. 503996 , N. 435425
- What3words (what3words, 2026): questions.steep.charts; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14156; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

Details of the noise climate

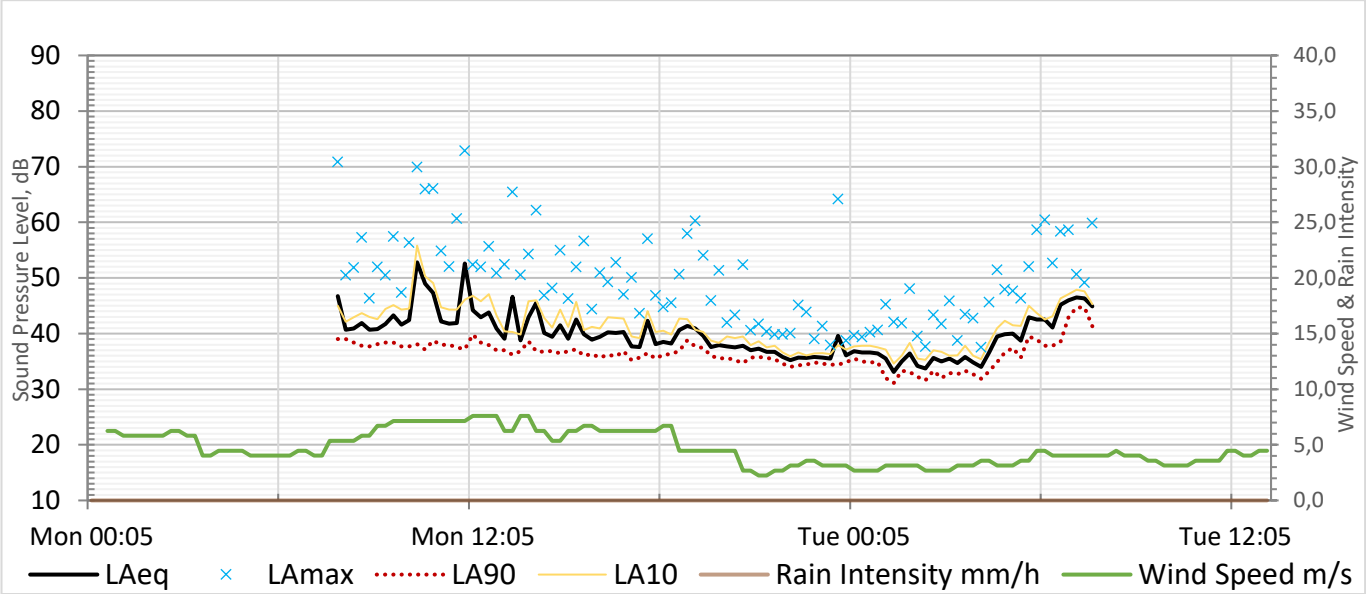
1.5.3 The noise climate at monitoring location E1 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources and hum from the

nearby Creyke Beck substation. There were also contributions from bird song and foliage.

Survey Results

1.5.4 The temporal variation in sound level during the survey period is shown in Image 1.46.

Image 1.46 – Survey Variation in Sound Levels – Location E1



1.5.5 A summary of measured sound levels is provided in Table 1.12

Table 1.12 – Summary of measured sound levels – E1

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	43	39 - 73 Mode: 52 10th percentile: 62	45
Night	39	38 - 64 Mode: 38 10th percentile: 59	43

Location E2

1.5.6 A photograph of survey location E2 is provided in Image 1.47.

Image 1.47 – Ecology Survey Location E2 Set Up Picture



1.5.7 The survey location is as follows:

- Easting/Northing: E. 504322, N. 435246
- What3words (what3words, 2026): commuting.riddle.pasting; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14938; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

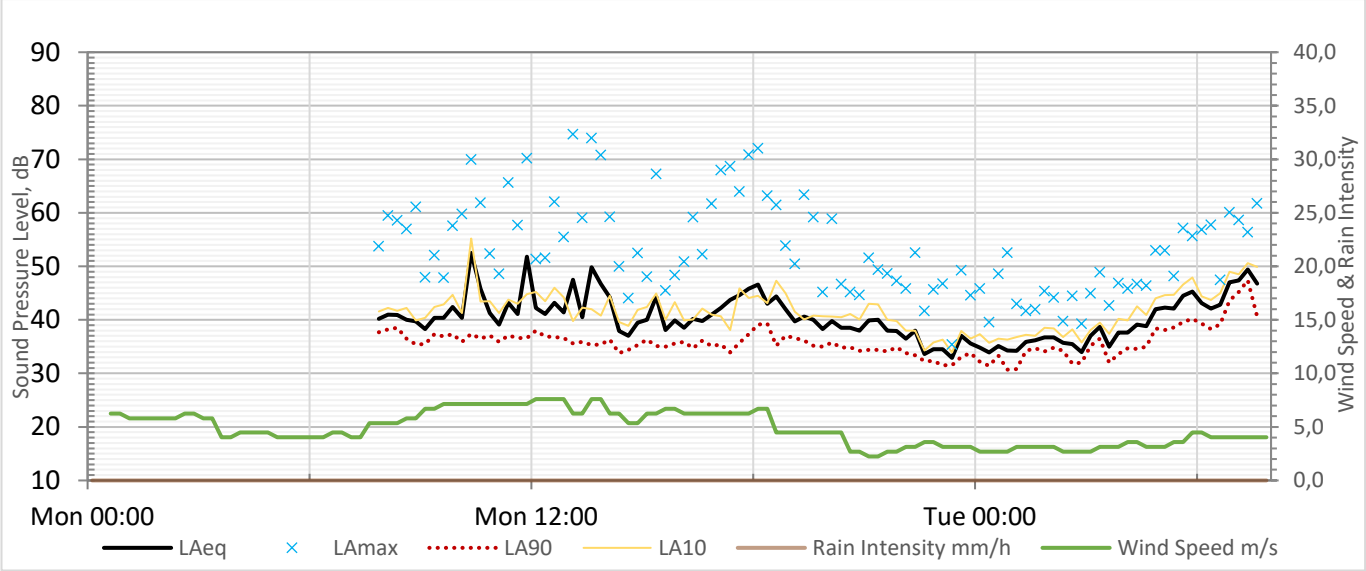
Details of the noise climate

1.5.8 The noise climate at monitoring location E2 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources and hum from the nearby Creyke Beck substation. There were also contributions from bird song and foliage.

Survey Results

1.5.9 The temporal variation in sound level during the survey period is shown in Image 1.48.

Image 1.48 – Survey Variation in Sound Levels – Location E2



1.5.10 A summary of measured sound levels is provided in Table 1.13.

Table 1.13 – Summary of measured sound levels – E2

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	44	42 - 75 Mode: 59 10th Percentile: 70	47
Night	40	35 - 60 Mode: 47 10th Percentile: 57	44

Location E3

1.5.11 A photograph of survey location E3 is provided in Image 1.49.

Image 1.49 – Ecology Survey Location E3 Set Up Picture



1.5.12 The survey location is as follows:

- Easting/Northing: E. 497998 , N. 432089
- What3words (what3words, 2026): stitch.respected.fruitcake; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12080; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

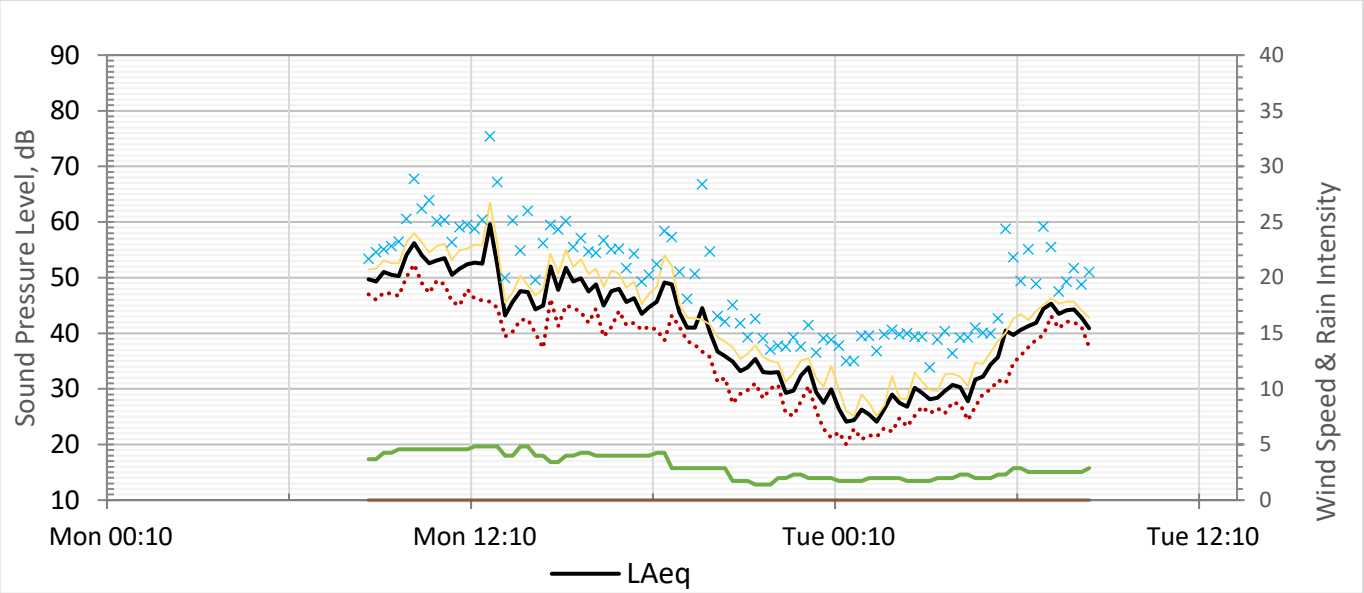
Details of the noise climate

1.5.13 The noise climate at monitoring location E3 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.14 The temporal variation in sound level during the survey period is shown in Image 1.50.

Image 1.50 – Survey Variation in Sound Levels – Location E3



1.5.15 A summary of measured sound levels is provided in Table 1.14.

Table 1.14 – Summary of measured sound levels – E3

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	49	37 – 75 Mode: 55 10th Percentile: 70	52
Night	36	34 - 59 Mode: 40 10th Percentile: 57	40

Location E4

1.5.16 A photograph of survey location E4 is provided in Image 1.51.

Image 1.51 – Ecology Survey Location 4 Set Up Picture



1.5.17 The survey location is as follows:

- Easting/Northing: E. 497998 , N. 432089
- What3words (what3words, 2026): stitch.respected.fruitcake; and
- measurement condition: Free-field.

Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12081; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

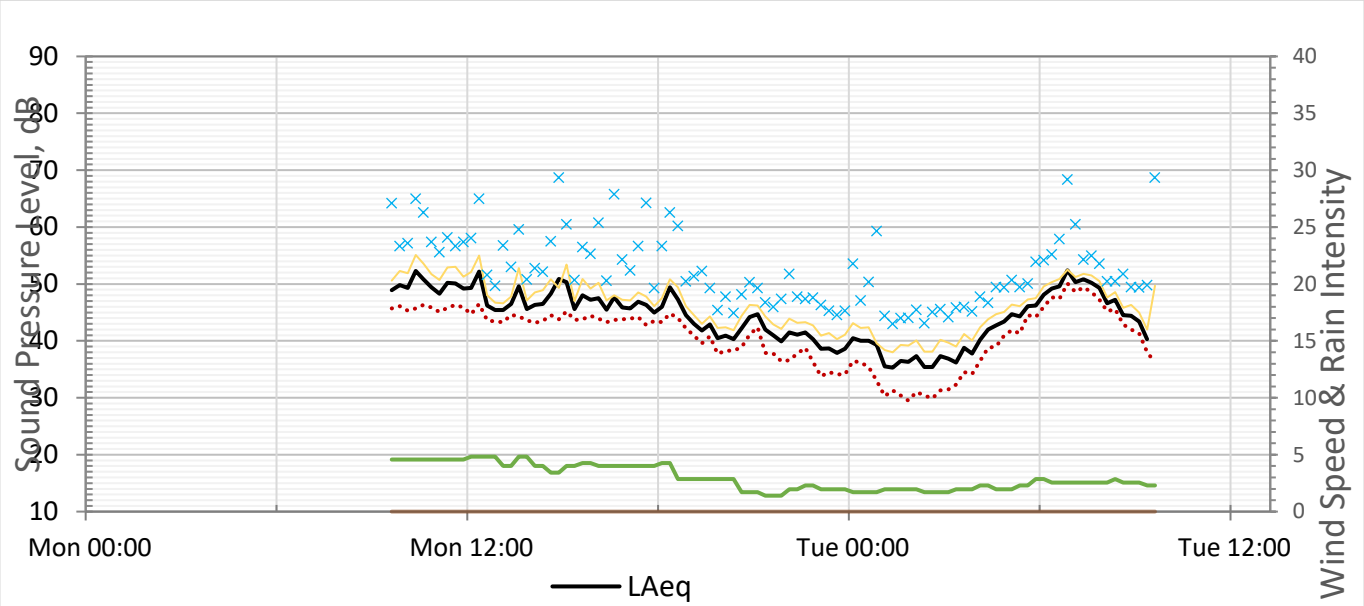
Details of the noise climate

1.5.18 The noise climate at monitoring location E4 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources with occasional pedestrians walking on the nearby footpath. There were also contributions from bird song and foliage.

Survey Results

1.5.19 The temporal variation in sound level during the survey period is shown in Image 1.52.

Image 1.52 – Survey Variation in Sound Levels – Location P4



1.5.20 A summary of measured sound levels is provided in Table 1.15.

Table 1.15 – Summary of measured sound levels – E4

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	47	45 - 69 Mode: 57 10th Percentile: 64	49
Night	44	43 - 68 Mode: 46 10th Percentile: 55	50

Location E5

1.5.21 A photograph of survey location E5 is provided in Image 1.53.

Image 1.53 – Ecology Survey Location 5 Set Up Picture



1.5.22 The survey location is as follows:

- Easting/Northing: E. 490946 , N. 428728
- What3words (what3words, 2026): relatives.muscular.craters; and
- Measurement condition: Free-field.

1.5.23 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12079; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

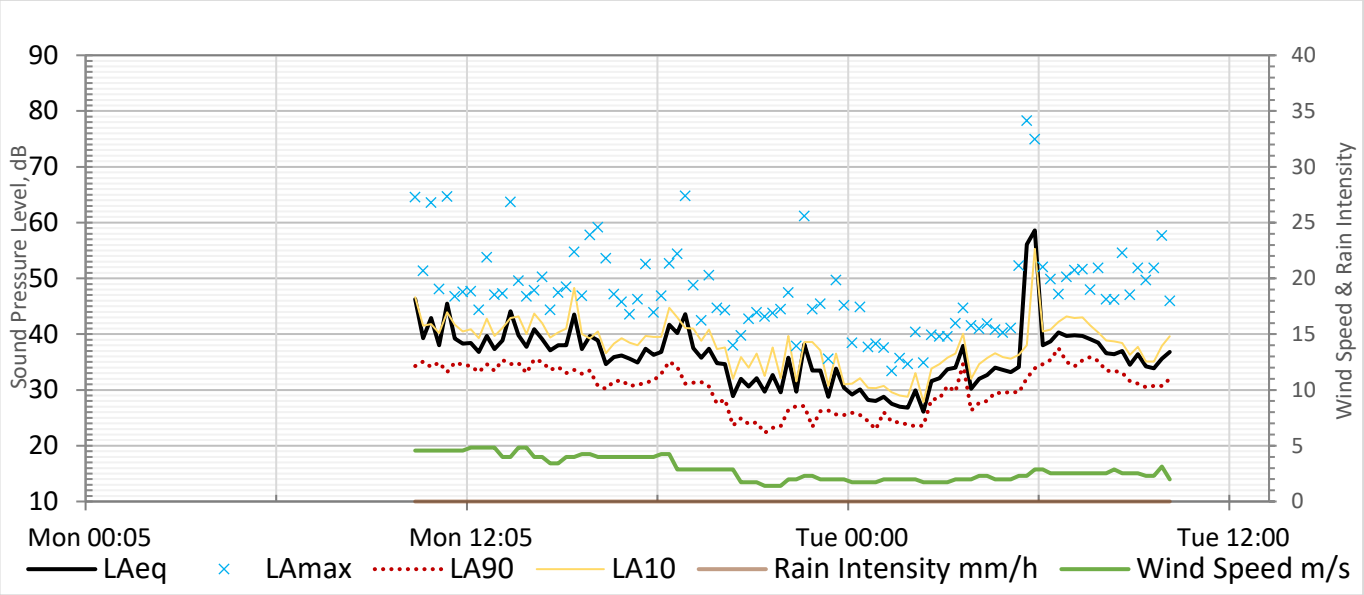
Details of the noise climate

1.5.24 The noise climate at monitoring location E5 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.25 The temporal variation in sound level during the survey period is shown in Image 1.54.

Image 1.54 – Survey Variation in Sound Levels – Location E5



1.5.26 A summary of measured sound levels is provided in Table 1.16.

Table 1.16 – Summary of measured sound levels – E5

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	39	38 - 65 Mode: 44 10th Percentile: 59	36
Night	46	33 - 78 Mode: 40 10th Percentile: 52	38

Location E6

1.5.27 A photograph of survey location E6 is provided in Image 1.55.

Image 1.55 – Ecology Survey Location E6 Set Up Picture



1.5.28 The survey location is as follows:

- Easting/Northing: E. 487651 , N. 427366
- What3words (what3words, 2026): straddled.plump.scoping; and
- Measurement condition: Free-field.

1.5.29 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14157; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

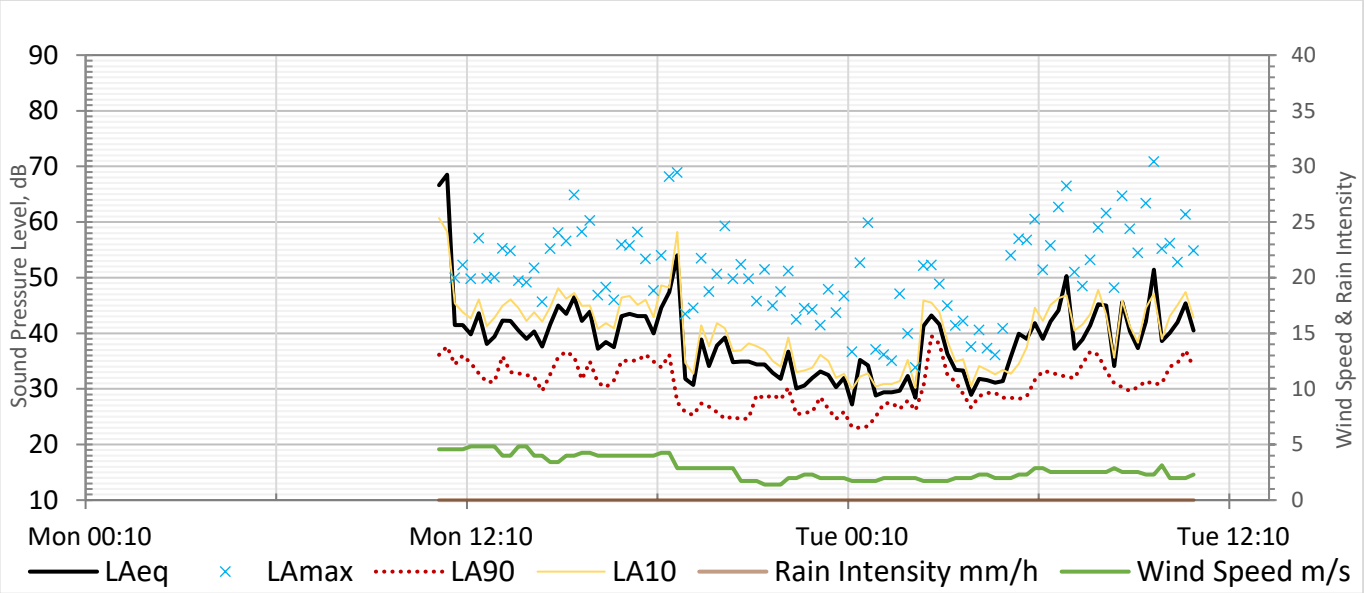
Details of the noise climate

1.5.30 The noise climate at monitoring location E6 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.31 The temporal variation in sound level during the survey period is shown in Image 1.56.

Image 1.56 – Survey Variation in Sound Levels – Location E6



1.5.32 A summary of measured sound levels is provided in Table 1.17.

Table 1.17 – Summary of measured sound levels – E6

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	53	43 - 71 Mode: 50 10th Percentile: 61	38
Night	39	34 - 67 Mode: 37 10th Percentile: 60	40

Location E7

1.5.33 A photograph of survey location E7 is provided in Image 1.57.

Image 1.57 – Ecology Survey Location E7 Set Up Picture



1.5.34 The survey location is as follows:

- Easting/Northing: E. 486995 , N. 426976
- What3words (what3words, 2026): vouch.bandstand.though; and
- Measurement condition: Free-field.

1.5.35 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14145; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 89092.

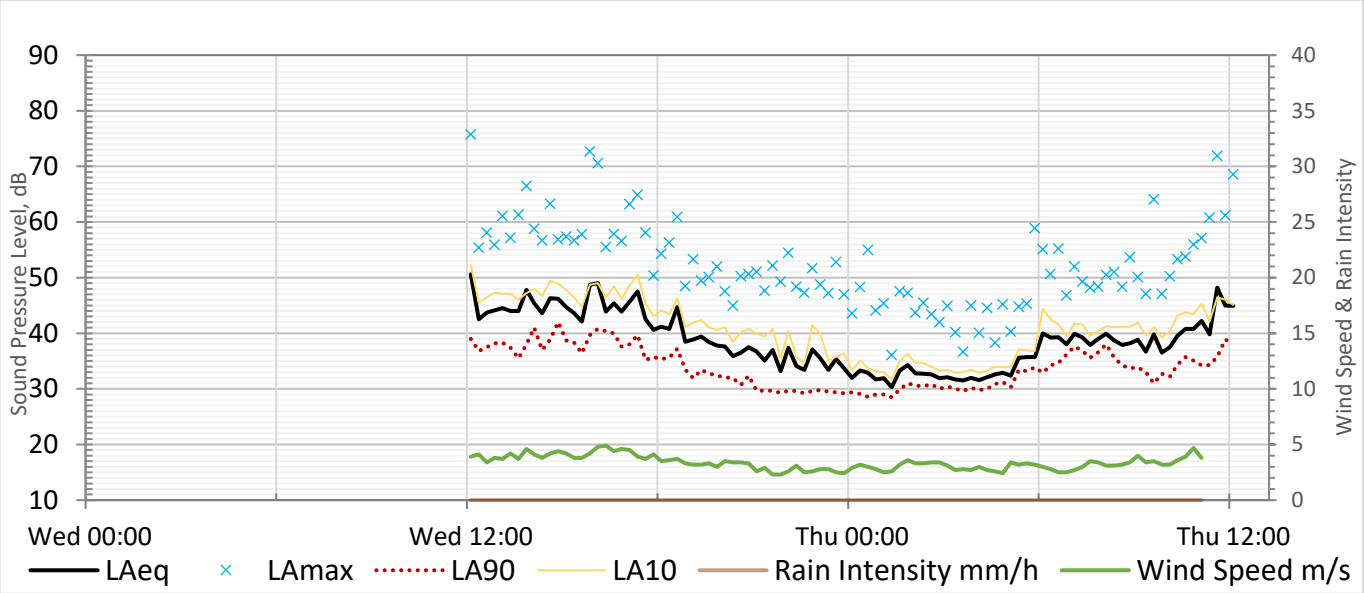
Details of the noise climate

1.5.36 The noise climate at monitoring location E7 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.37 The temporal variation in sound level during the survey period is shown in Image 1.58.

Image 1.58 – Survey Variation in Sound Levels – Location E7



1.5.38 A summary of measured sound levels is provided in Table 1.18.

Table 1.18 – Summary of measured sound levels – E7

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	43	45 - 76 Mode: 57 10th Percentile: 65	42
Night	35	36 - 59 Mode: 45 10th Percentile: 55	36

Location E8

1.5.39 A photograph of survey location E8 is provided in Image 1.59.

Image 1.59 – Ecology Survey Location E8 Set Up Picture



1.5.40 The survey location is as follows:

- Easting/Northing: E. 485433 , N. 427092
- What3words (what3words, 2026): hostels.position.apart; and
- Measurement condition: Free-field.

1.5.41 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14148; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 89092.

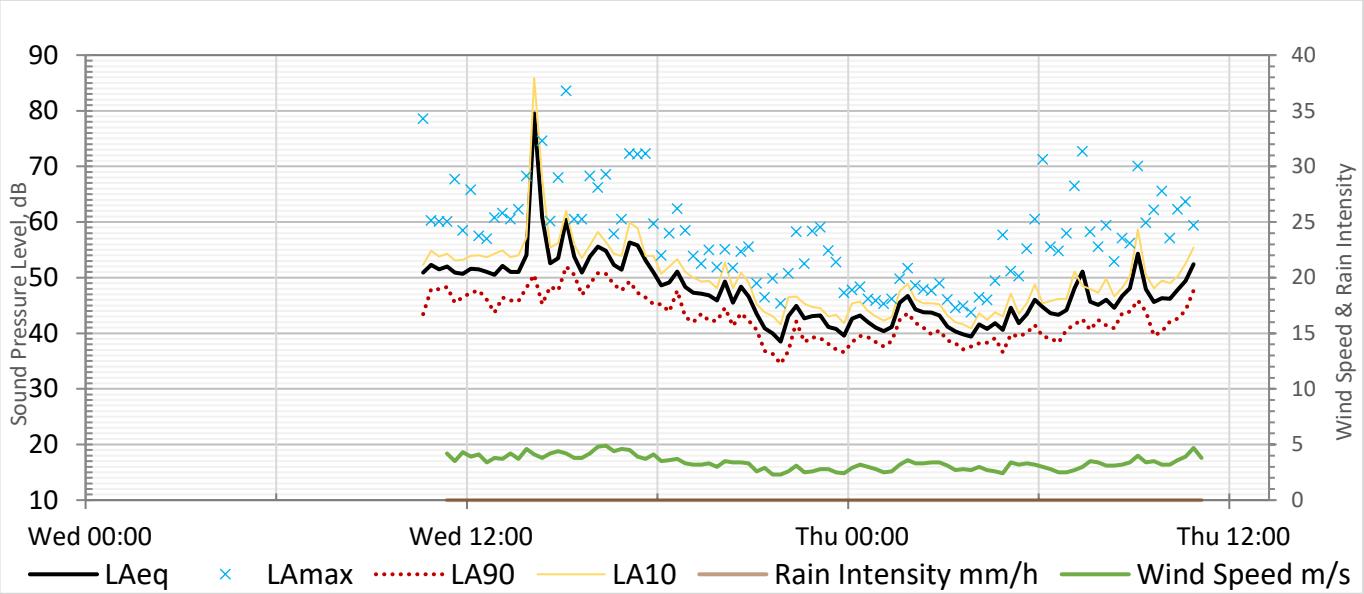
Details of the noise climate

1.5.42 The noise climate at monitoring location E8 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.43 The temporal variation in sound level during the survey period is shown in Image 1.60.

Image 1.60 – Survey Variation in Sound Levels – Location E8



1.5.44 A summary of measured sound levels is provided in Table 1.19.

Table 1.19 – Summary of measured sound levels – E8

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	62	45 - 91 Mode: 60 10th Percentile: 72	52
Night	43	44 - 71 Mode: 46 10th Percentile: 58	44

Location E8b

1.5.45 This measurement location was repeated a second time during the period of which the nearby quarry was not in operation. A photograph of survey location E8b is provided in Image 1.61.

Image 1.61 – Ecology Survey Location E8b Set Up Picture



1.5.46 The survey location is as follows:

- Easting/Northing: E. 485433 , N. 427092
- What3words (what3words, 2026): hostels.position.apart; and
- Measurement condition: Free-field.

1.5.47 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 10325; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 96164

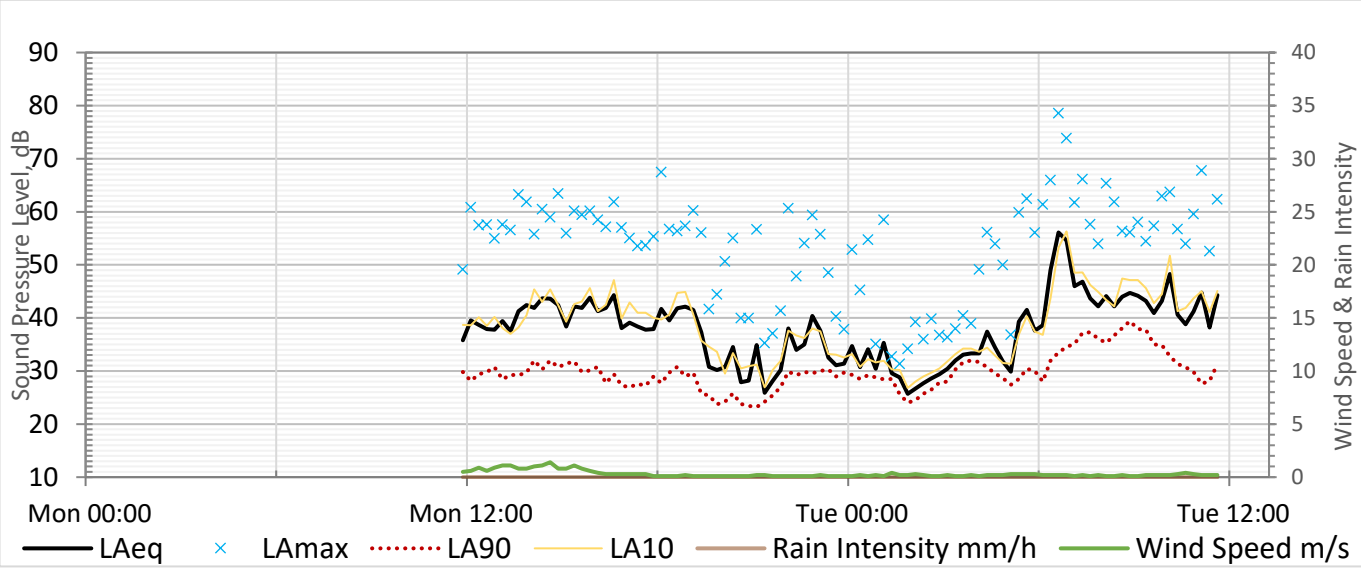
Details of the noise climate

1.5.48 The noise climate at monitoring location E8b is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.49 The temporal variation in sound level during the survey period is shown in Image 1.62.

Image 1.62 – Survey Variation in Sound Levels – Location E8b



1.5.50 A summary of measured sound levels is provided in Table 1.20.

Table 1.20 – Summary of measured sound levels – E8b

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	41	35 - 68 Mode: 57 10th Percentile: 63	39
Night	44	31 - 79 Mode: 56 10th Percentile: 62	35

Location E9

1.5.51 A photograph of survey location E9 is provided in Image 1.63.

Image 1.63 – Ecology Survey Location E9 Set Up Picture



1.5.52 The survey location is as follows:

- Easting/Northing: E. 485786 , N. 426322
- What3words (what3words, 2026): enlighten.body.fatter; and
- Measurement condition: Free-field.

1.5.53 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14939; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 89092.

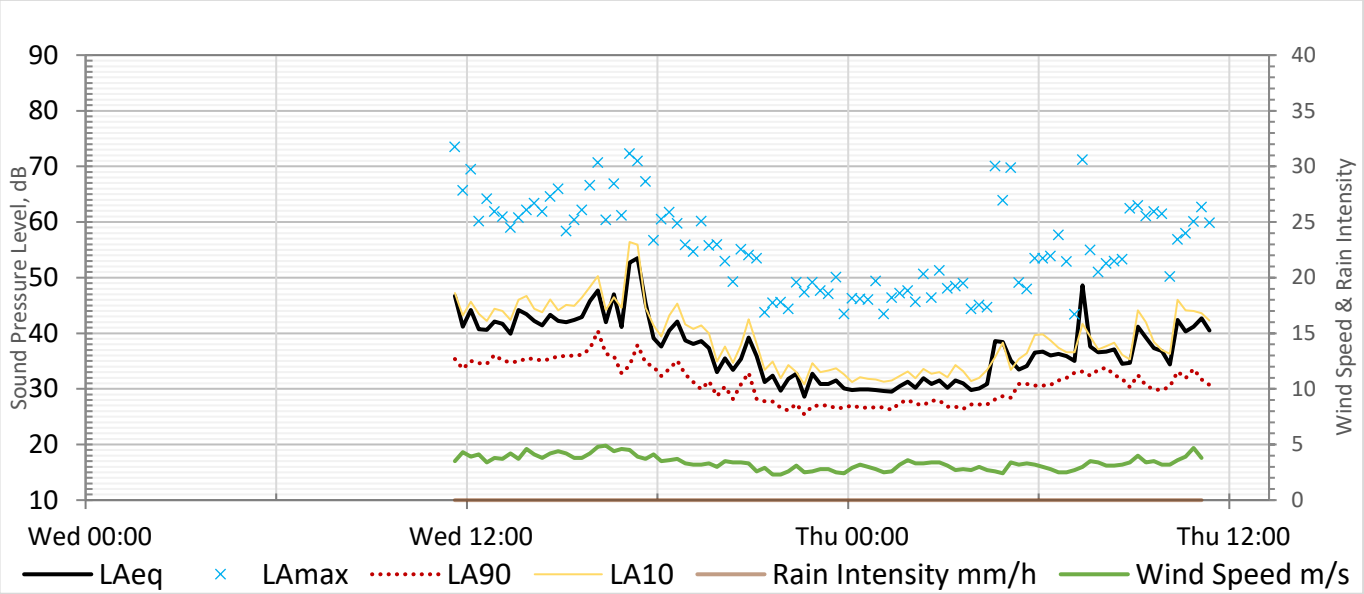
Details of the noise climate

1.5.54 The noise climate at monitoring location E9 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.55 The temporal variation in sound level during the survey period is shown in Image 1.64.

Image 1.64 – Survey Variation in Sound Levels – Location E9



1.5.56 A summary of measured sound levels is provided in Table 1.21.

Table 1.21 – Summary of measured sound levels – E9

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	43	43 - 74 Mode: 60 10th Percentile: 67	40
Night	33	44 - 70 Mode: 46 10th Percentile: 57	32

Location E10

1.5.57 A photograph of survey location E10 is provided in Image 1.65.

Image 1.65 – Ecology Survey Location E10 Set Up Picture



1.5.58 The survey location is as follows:

- Easting/Northing: E. 485201 , N. 426217
- What3words (what3words, 2026): dare.transmits.playful; and
- Measurement condition: Free-field.

1.5.59 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14941; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 89092.

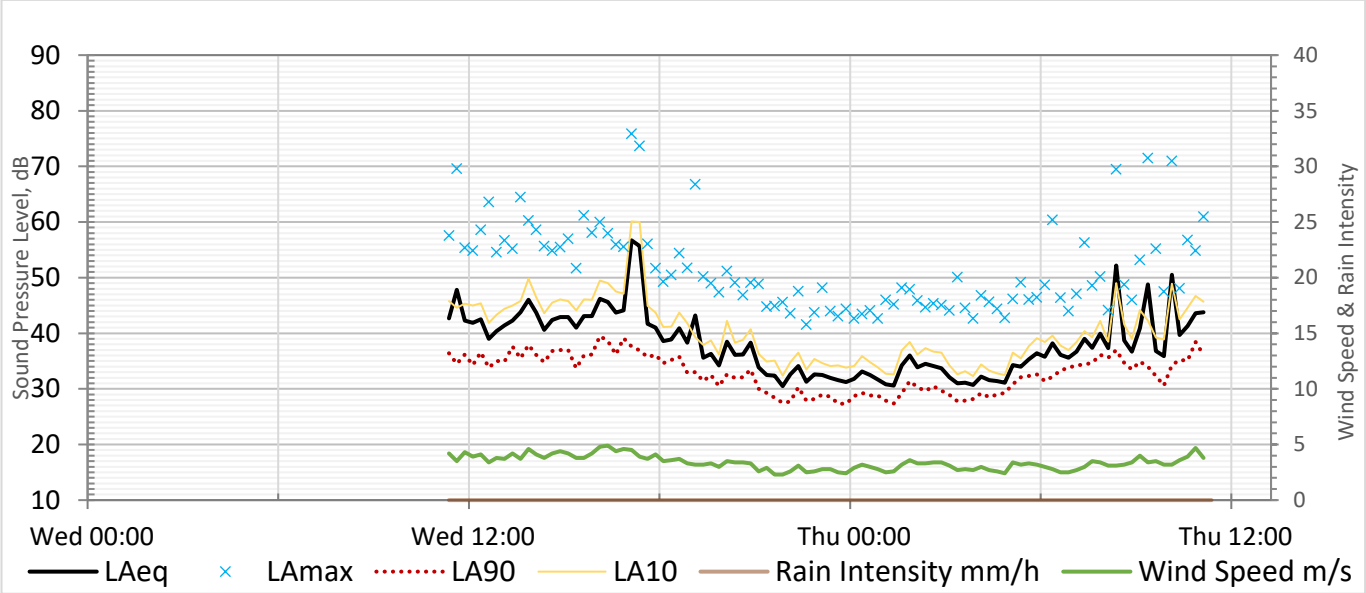
Details of the noise climate

1.5.60 The noise climate at monitoring location E10 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.61 The temporal variation in sound level during the survey period is shown in Image 1.66.

Image 1.66 – Survey Variation in Sound Levels – Location E10



1.5.62 A summary of measured sound levels is provided in Table 1.22.

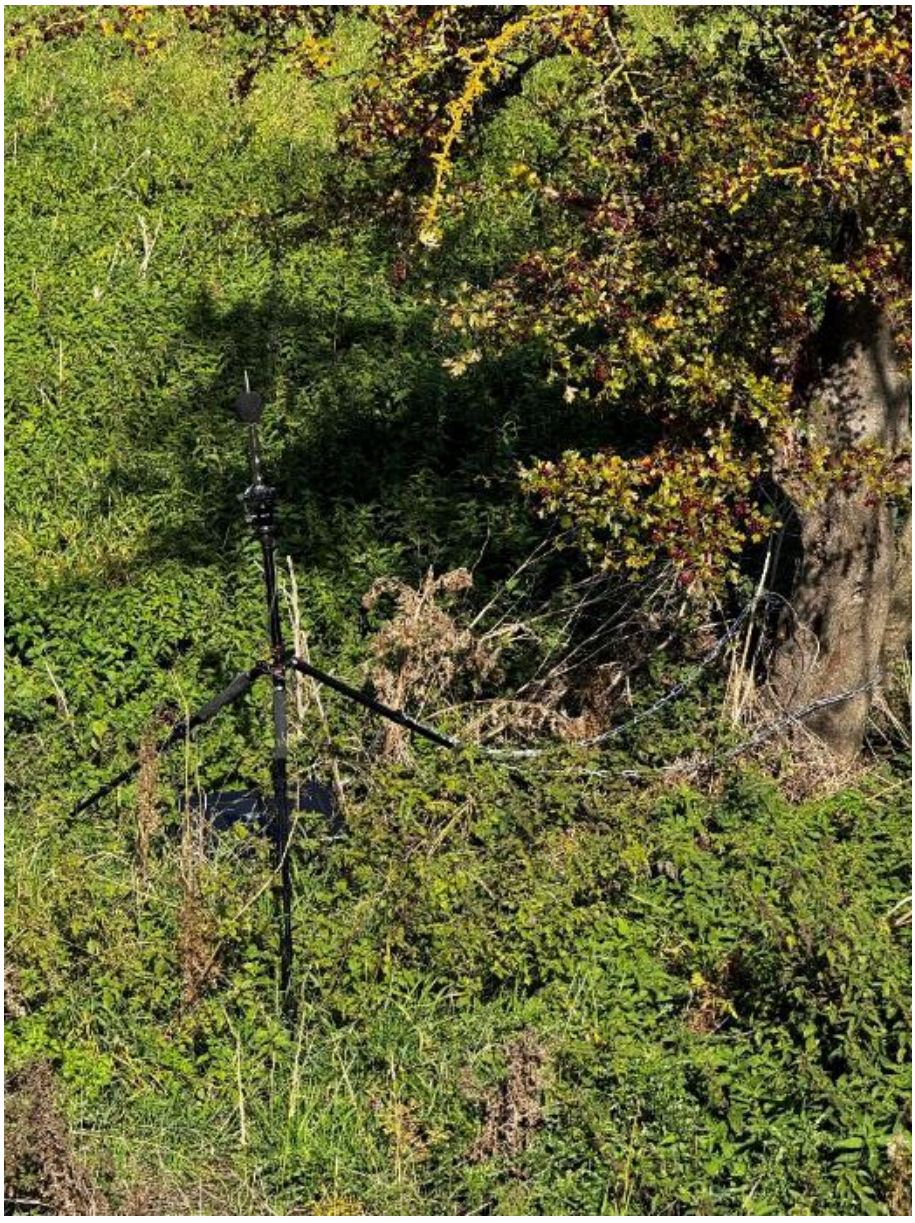
Table 1.22 – Summary of measured sound levels – E10

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	45	42 - 76 Mode: 55 10th Percentile: 66	40
Night	34	43 - 60 Mode: 44 10th Percentile: 49	34

Location E11

1.5.63 A photograph of survey location E11 is provided in Image 1.67.

Image 1.67 – Ecology Survey Location E11 Set Up Picture



1.5.64 The survey location is as follows:

- Easting/Northing: E. 482761 , N. 424110
- What3words (what3words, 2026): mouths.passing.droplet; and
- Measurement condition: Free-field.

1.5.65 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14154; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 96164.

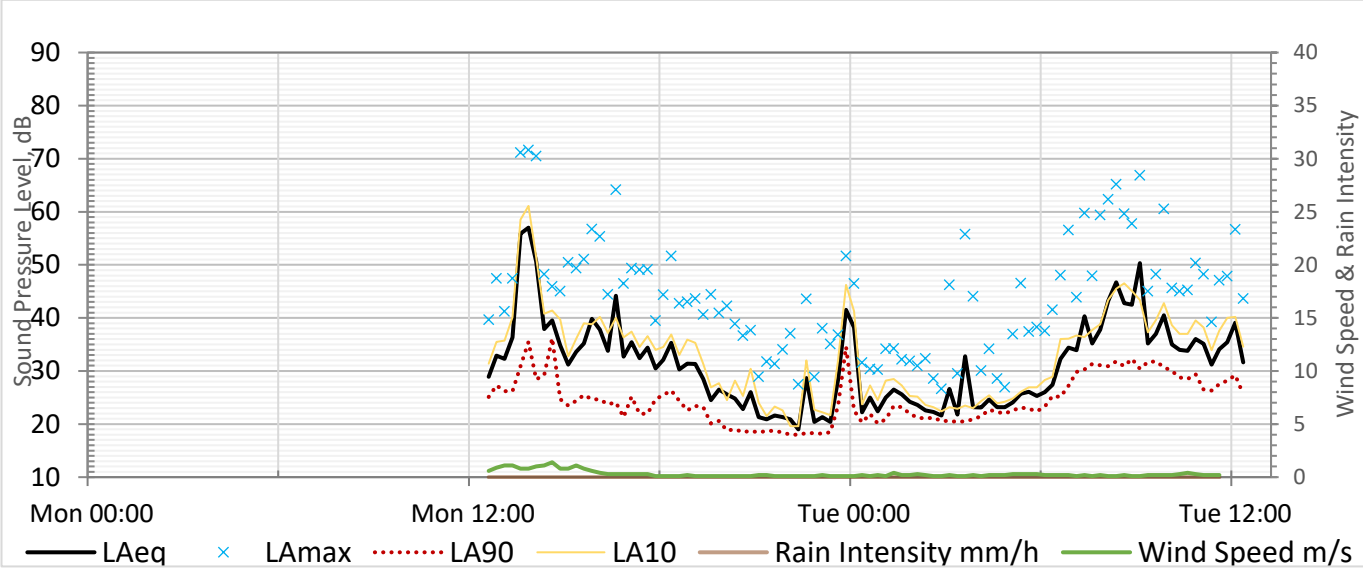
Details of the noise climate

1.5.66 The noise climate at monitoring location E11 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.67 The temporal variation in sound level during the survey period is shown in Image 1.68.

Image 1.68 – Survey Variation in Sound Levels – Location E11



1.5.68 A summary of measured sound levels is provided in Table 1.23.

Table 1.23 – Summary of measured sound levels – E11

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	43	28 - 72 Mode: 48 10th Percentile: 62	36
Night	30	27 - 57 Mode: 38 10th Percentile: 48	35

Location E12

1.5.69 A photograph of survey location E12 is provided in Image 1.69.

Image 1.69 – Ecology Survey Location E12 Set Up Picture



1.5.70 The survey location is as follows:

- Easting/Northing: E. 482899 , N. 421689
- What3words (what3words, 2026): trackers.poetry.circulate; and
- Measurement condition: Free-field.

1.5.71 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 11893; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

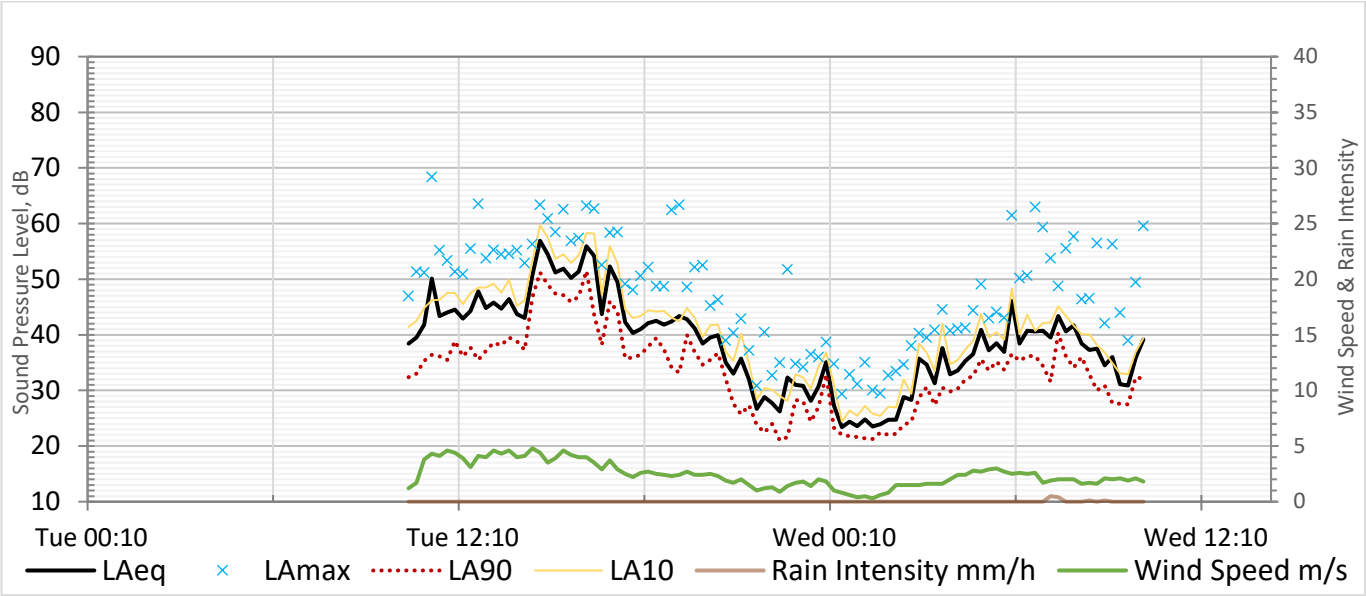
Details of the noise climate

1.5.72 The noise climate at monitoring location E12 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage as well as distant farm vehicles.

Survey Results

1.5.73 The temporal variation in sound level during the survey period is shown in Image 1.70.

Image 1.70 – Survey Variation in Sound Levels – Location E12



1.5.74 A summary of measured sound levels is provided in Table 1.24.

Table 1.24 – Summary of measured sound levels – E12

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	47	31 - 68 Mode:51 10th Percentile: 62	52
Night	37	29 - 63 Mode:41 10th Percentile: 51	37

Location E13

1.5.75 A photograph of survey location E13 is provided in Image 1.71.

Image 1.71 – Ecology Survey Location E13 Set Up Picture



1.5.76 The survey location is as follows:

- Easting/Northing: E. 482719 , N. 421190
- What3words (what3words, 2026): protest.subtitle.petal; and
- Measurement condition: Free-field.

1.5.77 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14941; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

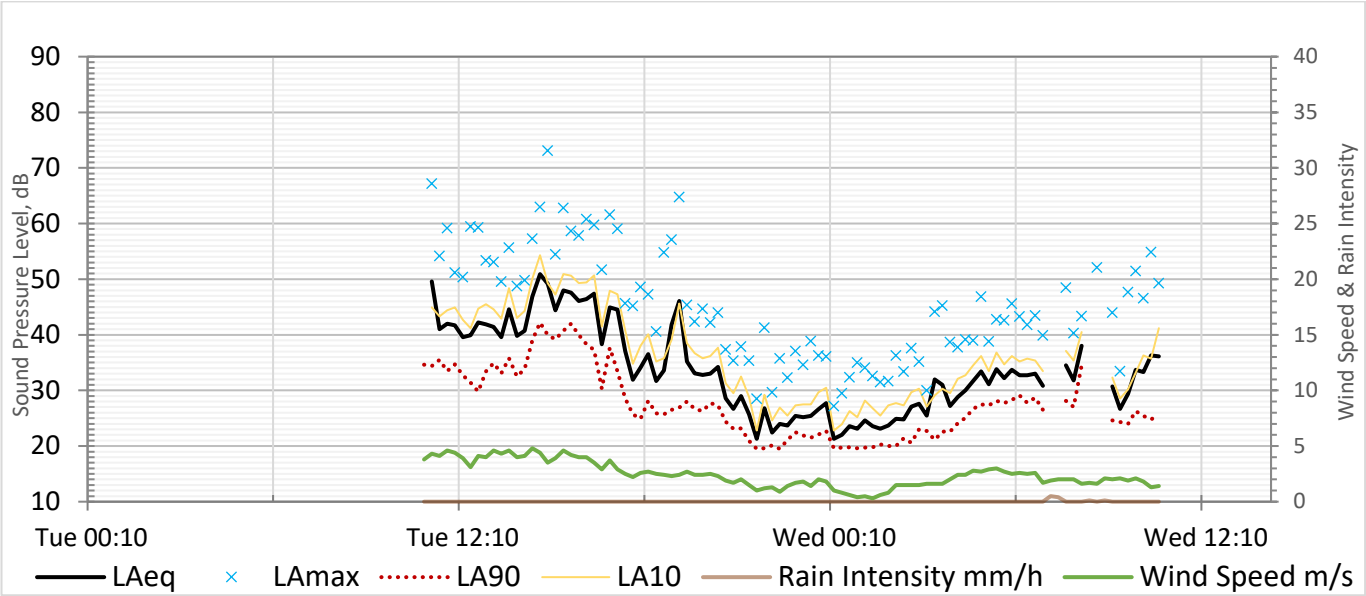
Details of the noise climate

1.5.78 The noise climate at monitoring location E13 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song, animal activity (deer) and foliage.

Survey Results

1.5.79 The temporal variation in sound level during the survey period is shown in Image 1.72.

Image 1.72 – Survey Variation in Sound Levels – Location E13



1.5.80 A summary of measured sound levels is provided in Table 1.25.

Table 1.25 – Summary of measured sound levels – E13

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	42	29 - 73 Mode: 59 10th Percentile: 61	42
Night	30	27 - 47 Mode: 39 10th Percentile: 44	29

Location E14

1.5.81 A photograph of survey location E14 is provided in Image 1.73.

Image 1.73 – Ecology Survey Location E14 Set Up Picture



1.5.82 The survey location is as follows:

- Easting/Northing: E. 483148 , N. 418098
- What3words (what3words, 2026): pegged.lilac.identity; and
- Measurement condition: Free-field.

1.5.83 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14939; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

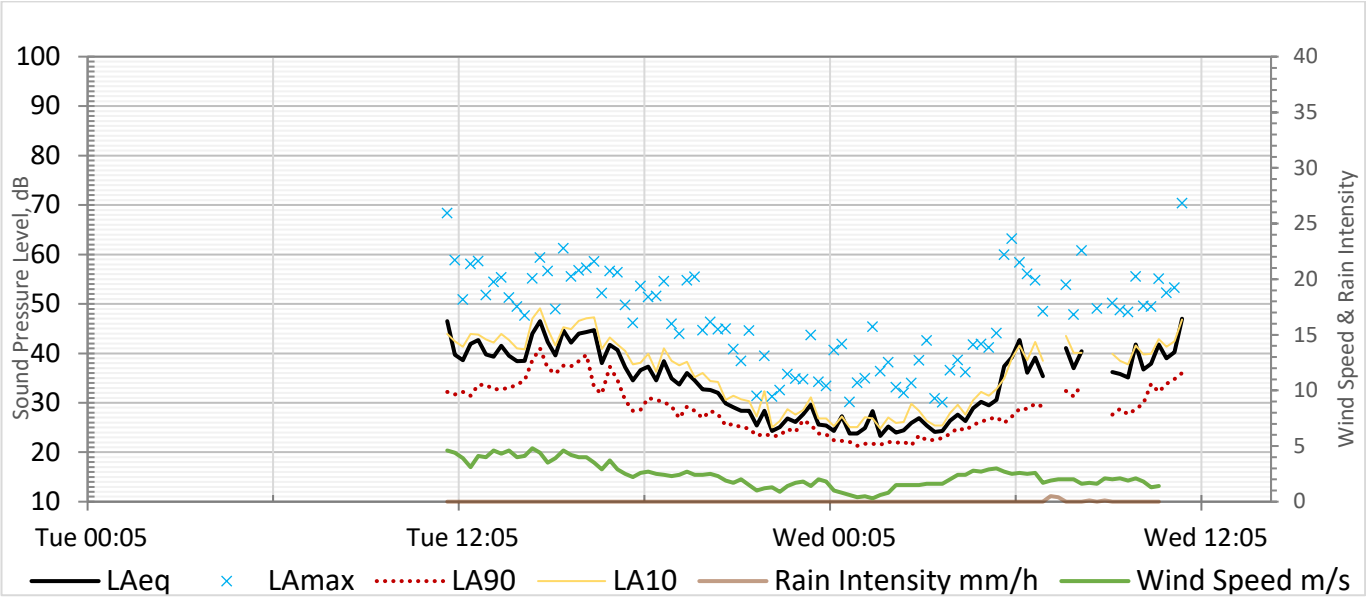
Details of the noise climate

1.5.84 The noise climate at monitoring location E14 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song, foliage and activity from the nearby main farmhouse on the land parcel where a power saw was being used.

Survey Results

1.5.85 The temporal variation in sound level during the survey period is shown in Image 1.74.

Image 1.74 – Survey Variation in Sound Levels – Location E14



1.5.86 A summary of measured sound levels is provided in Table 1.26.

Table 1.26 – Summary of measured sound levels – E14

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	40	31 - 70 Mode: 50 10th Percentile: 60	41
Night	33	30 - 63 Mode: 34 10th Percentile: 56	30

Location E15

1.5.87 A photograph of survey location E15 is provided in Image 1.75.

Image 1.75 – Ecology Survey Location E15 Set Up Picture



1.5.88 The survey location is as follows:

- Easting/Northing: E. 485073 , N. 416934
- What3words (what3words, 2026): premiums.revamped.fixated; and
- measurement condition: Free-field.

1.5.89 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14148; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

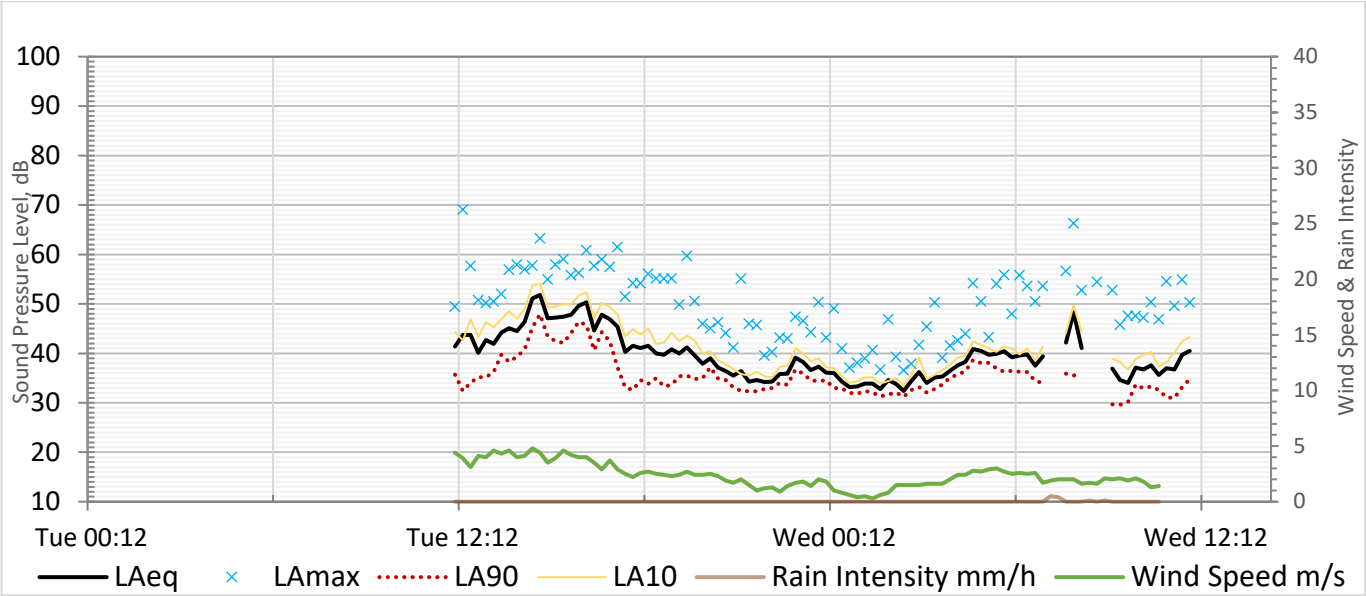
Details of the noise climate

1.5.90 The noise climate at monitoring location E15 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage. There was also an aircraft that passed over during the time of installation.

Survey Results

1.5.91 The temporal variation in sound level during the survey period is shown in Image 1.76.

Image 1.76 – Survey Variation in Sound Levels – Location E15



1.5.92 A summary of measured sound levels is provided in Table 1.27.

Table 1.27 – Summary of measured sound levels – E15

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	44	40 - 69 Mode: 50 10th Percentile: 59	48
Night	37	37 - 56 Mode: 50 10th Percentile: 54	39

Location E16

1.5.93 A photograph of survey location E16 is provided in Image 1.77.

Image 1.77 – Ecology Survey Location E16 Set Up Picture



1.5.94 The survey location is as follows:

- Easting/Northing: E. 479606 , N. 410987
- What3words (what3words, 2026): surprised.taxpayers.highs; and
- measurement condition: Free-field.

1.5.95 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12078; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

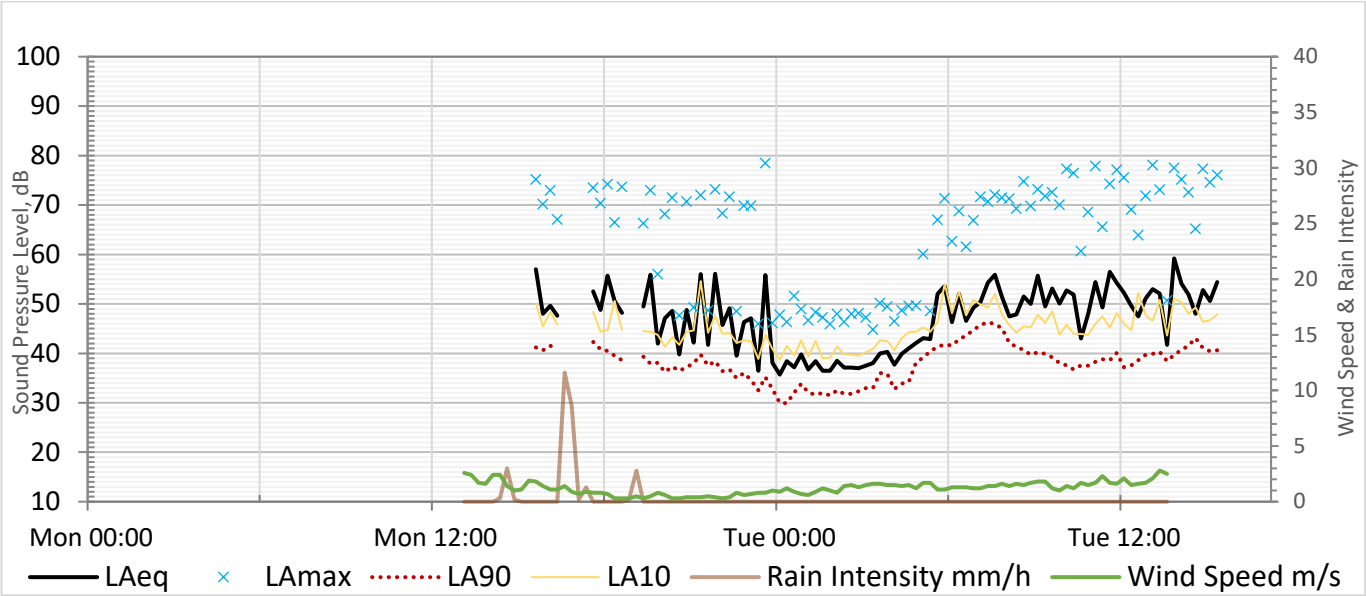
Details of the noise climate

1.5.96 The noise climate at monitoring location E16 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources and railway noise to the south of the land parcel. There were also contributions from bird song and foliage.

Survey Results

1.5.97 The temporal variation in sound level during the survey period is shown in Image 1.78.

Image 1.78 – Survey Variation in Sound Levels – Location E16



1.5.98 A summary of measured sound levels is provided in Table 1.28.

Table 1.28 – Summary of measured sound levels – E16

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	52	48 - 78 Mode: 72 10th Percentile: 77	46
Night	46	45 - 79 Mode: 46 10th Percentile: 69	45

Location E17

1.5.99 A photograph of survey location E17 is provided in Image 1.79.

Image 1.79 – Ecology Survey Location E17 Set Up Picture



1.5.100 The survey location is as follows:

- Easting/Northing: E. 475156 , N. 396634
- What3words (what3words, 2026): refilled.flickers.skin; and
- measurement condition: Free-field.

1.5.101 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12076; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

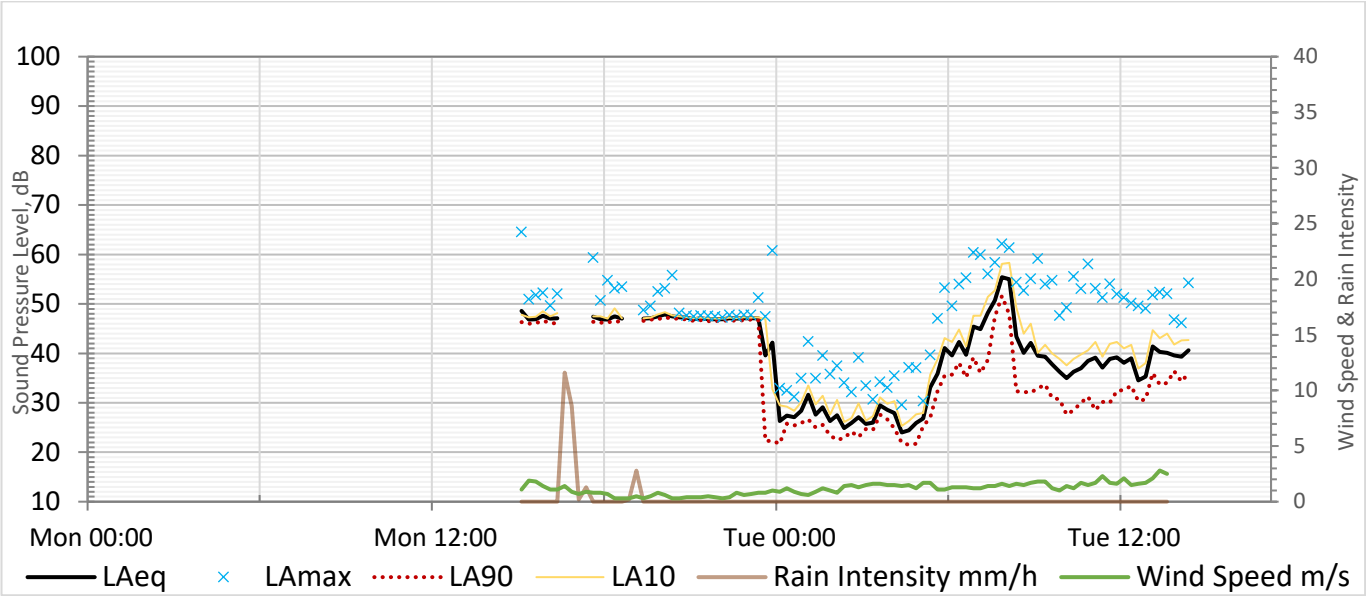
Details of the noise climate

1.5.102 The noise climate at monitoring location E17 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage. During setup there was also a tractor working in a nearby field and there was potential of activity noise on the land parcel from turf stripping.

Survey Results

1.5.103 The temporal variation in sound level during the survey period is shown in Image 1.80.

Image 1.80 – Survey Variation in Sound Levels – Location E17



1.5.104 A summary of measured sound levels is provided in Table 1.29.

Table 1.29 – Summary of measured sound levels – E17

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	47	47 - 65 Mode: 48 10th Percentile: 58	52
Night	39	30 - 61 Mode: 34 10th Percentile: 54	47

Location E18

1.5.105 A photograph of survey location E18 is provided in Image 1.81.

Image 1.81 – Ecology Survey Location E18 Set Up Picture



1.5.106 The survey location is as follows:

- Easting/Northing: E. 474494 , N. 392243
- What3words (what3words, 2026): seabirds.motels.burst; and
- measurement condition: Free-field.

1.5.107 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14147; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

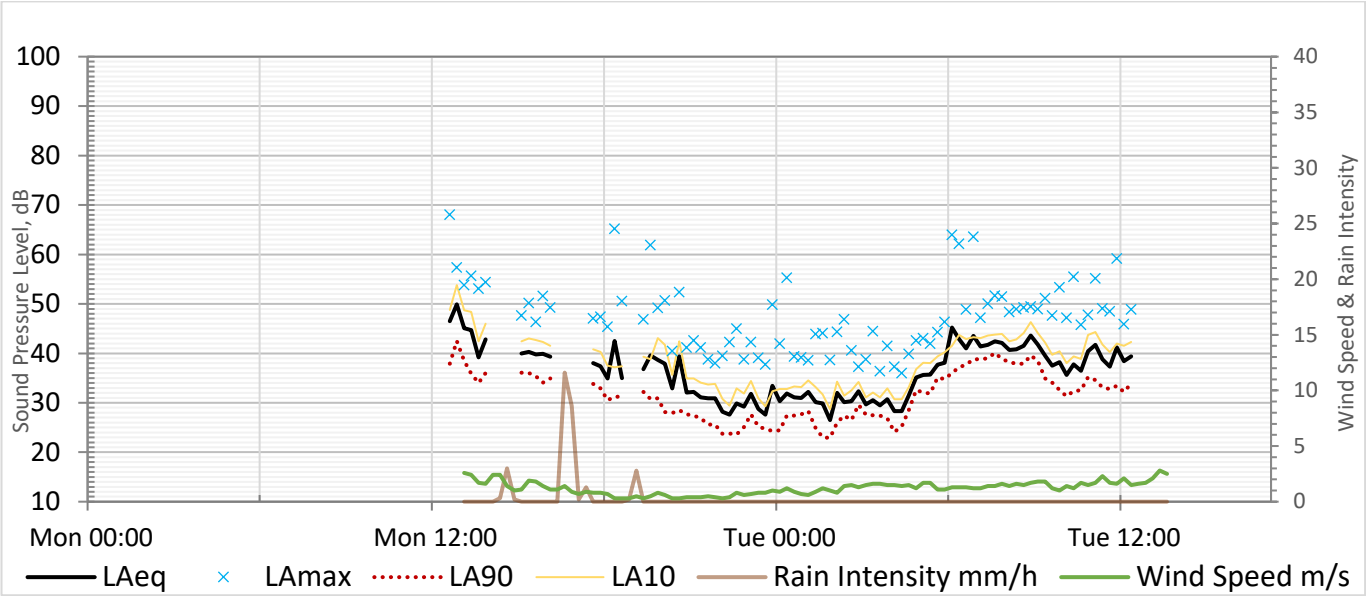
Details of the noise climate

1.5.108 The noise climate at monitoring location E18 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage and the potential for noise from walkers along the nearby footpath and canal, however this was not witnessed during attendance.

Survey Results

1.5.109 The temporal variation in sound level during the survey period is shown in Image 1.82.

Image 1.82 – Survey Variation in Sound Levels – Location E18



1.5.110 A summary of measured sound levels is provided in Table 1.30.

Table 1.30 – Summary of measured sound levels – E18

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	41	38 - 68 Mode: 49 10th Percentile: 57	43
Night	36	36 - 64 Mode: 39 10th Percentile: 55	39

Location E19

1.5.111 A photograph of survey location E19 is provided in Image 1.83.

Image 1.83 – Ecology Survey Location E19 Set Up Picture



1.5.112 The survey location is as follows:

- Easting/Northing: E. 477598 , N. 374203
- What3words (what3words, 2026): smirking.rescuer.driveways; and
- measurement condition: Free-field.

1.5.113 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12075; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

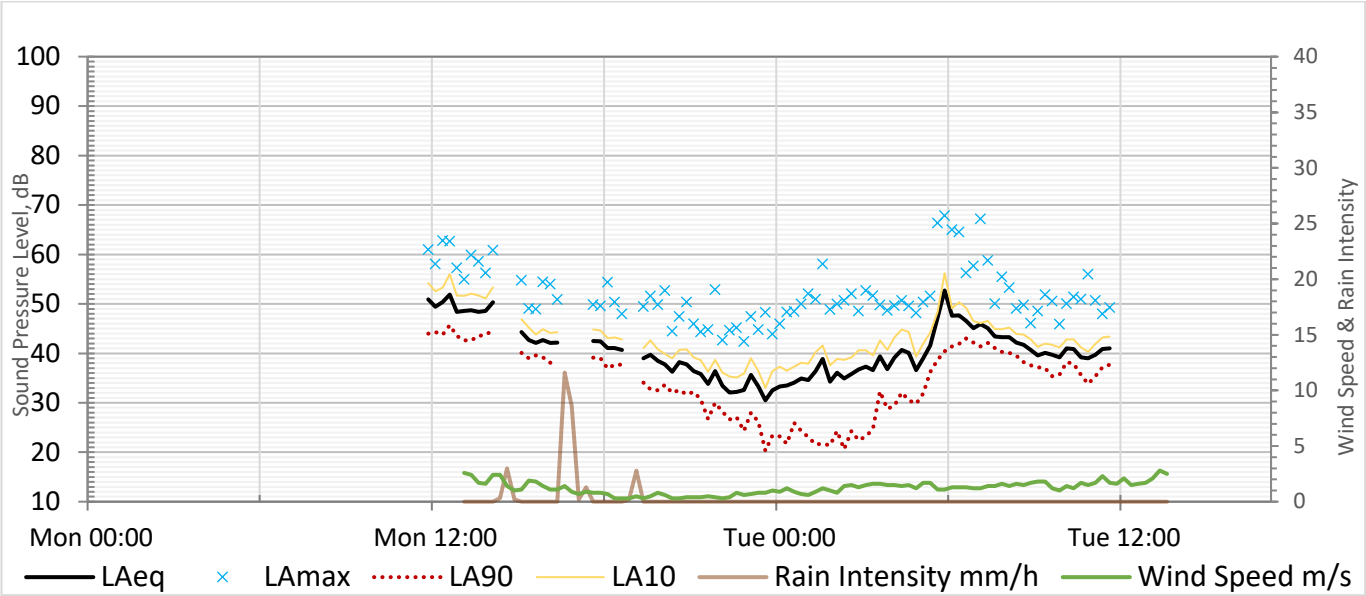
Details of the noise climate

1.5.114 The noise climate at monitoring location E19 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage. There was the potential of noise from surrounding farmland and river, but this was not observed during the setup as well as distant dog barks noted further from the site on the nearby footpath.

Survey Results

1.5.115 The temporal variation in sound level during the survey period is shown in Image 1.84.

Image 1.84 – Survey Variation in Sound Levels – Location E19



1.5.116 A summary of measured sound levels is provided in Table 1.31.

Table 1.31 – Summary of measured sound levels – E19

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	44	42 - 67 Mode: 50 10th Percentile: 60	46
Night	43	44 - 68 Mode: 50 10th Percentile:64	43

Location E20

1.5.117 A photograph of survey location E20 is provided in Image 1.85.

Image 1.85 – Ecology Survey Location E20 Set Up Picture



1.5.118 The survey location is as follows:

- Easting/Northing: E. 481176 , N. 371948
- What3words (what3words, 2026): walnuts,shallower,ties; and
- measurement condition: Free-field.

1.5.119 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 14153; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 96164.

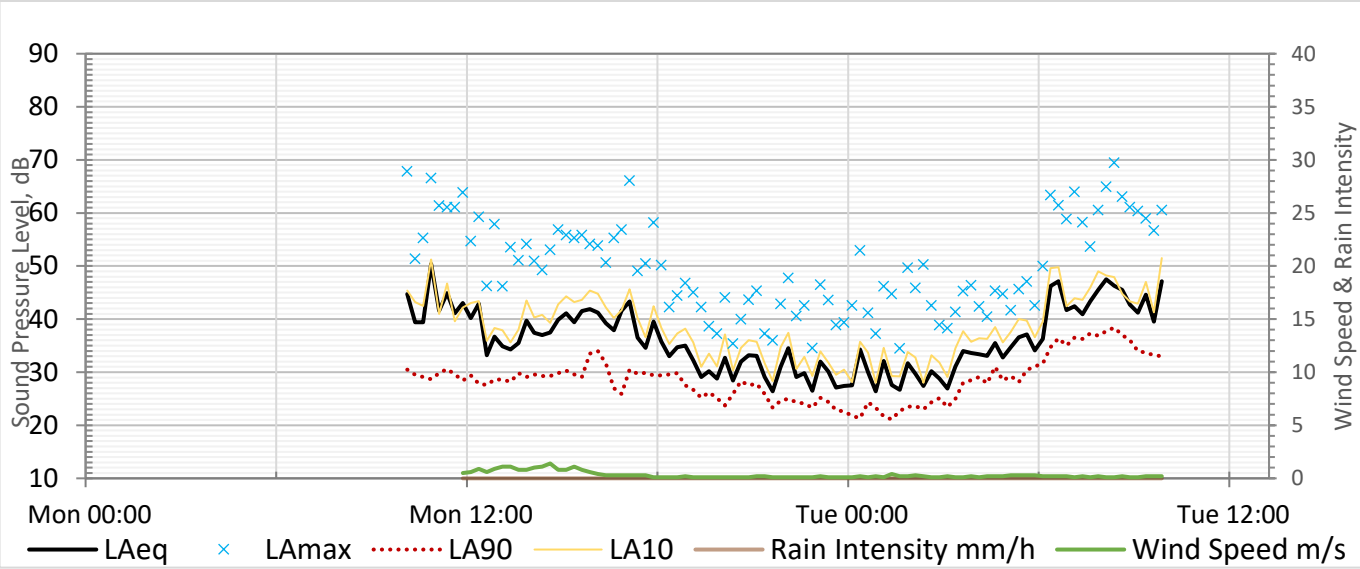
1.5.120 Details of the noise climate

1.5.121 The noise climate at monitoring location E20 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage.

Survey Results

1.5.122 The temporal variation in sound level during the survey period is shown in Image 1.86.

Image 1.86 – Survey Variation in Sound Levels – Location E20



1.5.123 A summary of measured sound levels is provided in Table 1.32.

Table 1.32 – Summary of measured sound levels – E20

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	41	35 - 70 Mode: 61 10th Percentile: 64	38
Night	37	35 - 63 Mode: 46 10th Percentile: 53	36

Location E21

1.5.124 A photograph of survey location E21 is provided in Image 1.87.

Image 1.87 – Ecology Survey Location E21 Set Up Picture



1.5.125 The survey location is as follows:

- Easting/Northing: E. 475991 , N. 396389
- What3words (what3words, 2026): family.restriction.intrigued; and
- measurement condition: Free-field.

1.5.126 Measurement equipment:

- Sound Level Meter: 01dB Fusion Serial number 12075; and
- Acoustic Calibrator: 01dB Cal 31 Serial number 82830.

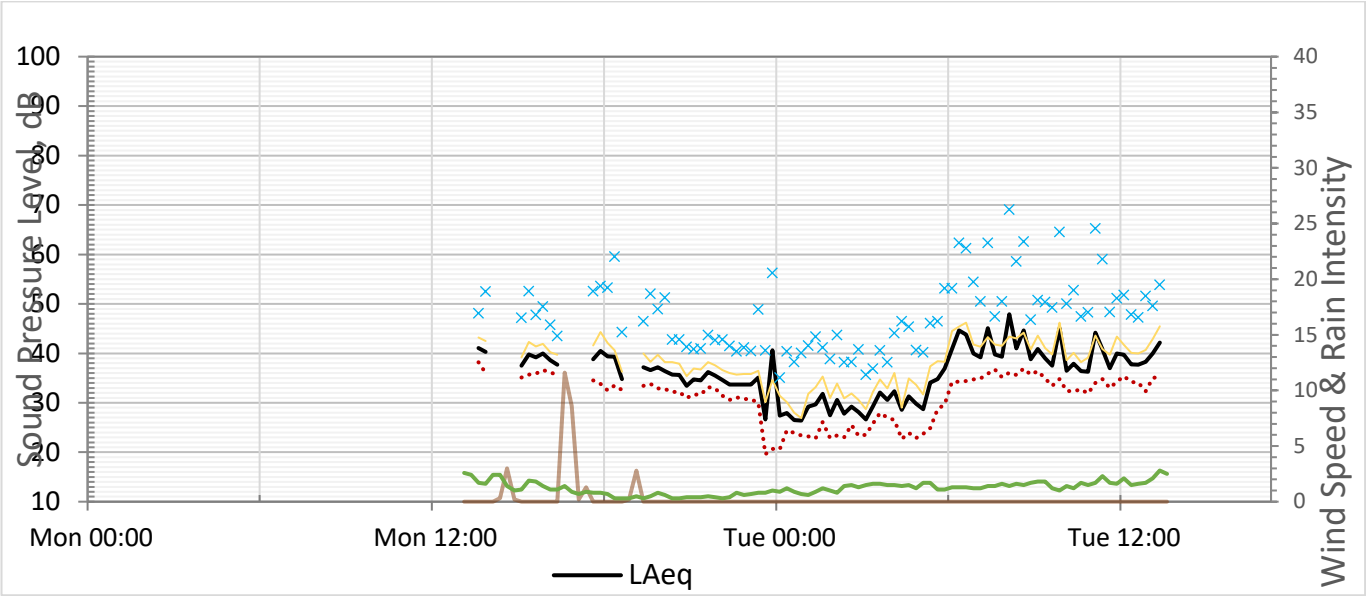
Details of the noise climate

1.5.127 The noise climate at monitoring location E21 is typical of a predominantly rural area. The main sources of ambient sound are distant road traffic sources. There were also contributions from bird song and foliage as well as some animal activity in the river and the potential of noise from nearby sheep kept on the land parcel.

Survey Results

1.5.128 The temporal variation in sound level during the survey period is shown in Image 1.88.

Image 1.88 – Survey Variation in Sound Levels – Location E21



1.5.129 A summary of measured sound levels is provided in Table 1.33.

Table 1.33 – Summary of measured sound levels – E21

Time Period	Average Sound Level, dB $L_{Aeq,15min}$	Maximum Sound Level, dB $L_{AFmax,15min}$	Background Sound Level, dB $L_{A90,15min}$
Day	40	40 - 69 Mode: 48 10th Percentile: 59	38
Night	36	35 - 62 Mode: 41 10th Percentile: 54	35

References

BSI. (2003). BS 7445-1:2003 Description and measurement of environmental noise - Part 1: Guide to quantities and procedures. London: BSI.

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