The Sizewell C Project

6.3 Volume 2 Main Development Site

Chapter 11 Noise and Vibration

Appendix 11A Noise and Vibration Baseline Report

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SHARPS REDMORE

ACOUSTIC CONSULTANTS • Established 1990

Report

Sizewell C Project

Environmental Statement Volume 2, Chapter 11, Appendix 11A -

Noise and Vibration Baseline Report

Baseline Sound and Vibration Level Surveys

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Contents

Appendices

1.0 Introduction

1.1 Sharps Redmore was appointed by SZC Co. to undertake sound level and vibration assessments associated with the assessment of the proposed Sizewell C Project.

1.2 Supporting the various sound level and vibration assessments within the Noise and Vibration chapters of the **Environmental Statement (ES)** are baseline measurements of sound levels and vibration levels taken across the study area pre-development.

1.3 The baseline survey work reported, seeks to establish the typical existing, or pre-development sound and vibration conditions at representative receptor locations relative to all aspects of the proposed development and associated development.

1.4 Early sound level surveys associated with the project were undertaken in 2010 by AMEC and the results are presented in this report. Between 2013 and 2019 baseline sound and vibration level surveys have been undertaken by Sharps Redmore.

1.5 The AMEC survey results (2010) and survey results from the Sizewell B station outage in 2013 undertaken by Sharps Redmore are presented in **section 2**.

1.6 The survey methods employed by Sharps Redmore for baseline surveys for sound and vibration levels are described in **sections 3** and **4** of this report. **Section 5** describes the selection of noise sensitive receptor locations with respect to the various assessments associated with the development proposals.

1.7 **Section 6** sets out summary results of the baseline survey work and is supported by Summary Sheets (sound level) for all survey locations in **Annex B** to this report.

1.8 Baseline vibration measurements were made at a limited number of locations only, to provide an indication of 'background' or existing VDVs at positions near the existing rail network.

1.9 Baseline noise and vibration surveys have been discussed at liaison meetings held over a number of years with Local Authority representatives from Suffolk County Council and East Suffolk Council (and Suffolk Coastal District Council pre April 2019). Further to the liaison meeting of 22 August 2019, officers representing Suffolk County Council (SCC) and East Suffolk Council (ESC) verbally confirmed that they were satisfied with the extent of the baseline sound and vibration surveys undertaken.

2.0 AMEC and Outage Surveys

2.1 In 2010 a baseline sound level survey was undertaken at eight locations by AMEC with respect to the main development site. The survey locations are indicated in **Figure 11A.1** within **Annex A** to this report.

2.2 This initial baseline survey work took place between 29 March and 14 April 2010 for durations ranging from less than 24 hours, to a week. Locations for measurements were agreed with the local authority Suffolk Coastal District Council.

2.3 Results from the AMEC baseline sound survey work are summarised in **Table 2.1**.

2.4 Further to the AMEC baseline survey in 2010, Sharps Redmore conducted a follow up baseline sound survey (requested by the local authority) to take place during a Sizewell B station power outage in June 2013.

2.5 The purpose of this survey was to determine the potential future baseline conditions without the Sizewell B station operating. The survey locations are indicated in **Figure 11A.2** of **Annex A**.

2.6 During a power outage, there is typically a lot of maintenance activity on site, but some plant is not operational. As such, the sound produced from the site is potentially different from that produced when the Sizewell B station is producing power. The purpose of the survey was therefore to record sound levels around the site at a time when Sizewell B station was not generating power.

2.7 Four locations were surveyed and measurements taken between 3rd and 6th June 2013. Measurements were made by continuous unmanned surveys if secure locations were identified or otherwise by attended spot checks at different times of the day and night. The measurements were made over a period of three days.

2.8 Type 1 precision sound level meters were used for the survey work and field calibrated before and after each survey; no significant calibration drifts were found to have occurred. All the measurements were made in free-field conditions, away from reflective surfaces and trees with the microphones at heights of between 1.2 and 1.5metres above the ground in accordance with BS 7445-1:2003[1].

2.9 Measurements were made of the ambient sound levels (L_{Aeq}), background sound levels (L_{A90}) and maximum sound levels (L_{Amax}) during each survey.

2.10 Throughout this survey, the wind was from the north-east. During the first 24 hours there was a moderate breeze, but this dropped to a lighter breeze on days two and three. Weather conditions were therefore considered suitable for measurements of environmental sound throughout the survey period.

2.11 Results from the Sizewell B station outage baseline sound surveys are summarised in **Table 2.2**.

1. BS 7445-1:2003. Description and measurement of environmental noise. British Standards Institute, 12 December 2003.

Table 2.1 – AMEC baseline sound survey summaries 2010

Location	Period	Typical Ambient Sound (Level $L_{Aeq,T}$ dB)
ML1	Day	50-52
	Evening	48-49
	Night	42-52
ML2	Day	46-51
	Evening	45
	Night	52
ML3	Day	50-56
	Evening	43-48
	Night	41-55
ML4	Day	52-54*
	Evening	46*
	Night	36*
ML5	Day	47-52*
	Evening	44
	Night	43
ML6	Day	48-52
	Evening	35-44
	Night	45-48
ML7	Day	47-49
	Evening	37-46
	Night	44-51
ML8	Day	41-53
	Evening	38-44
	Night	38-40

*Night-time values are given with the effect of the “dawn chorus” removed

Table 2.2 – Baseline sound level survey summaries during Sizewell B station outage 2013

Location	Period	Typical Ambient Sound Level ($L_{Aeq,T}$ dB)	Observations
Ashwood Cottages (Map Ref OS3)	Day	37-47	Birdsong dominant. Wind in trees also significant at times. Tractors pass the site relatively often, and at one point crop spraying occurred in the adjacent field (resulting in a higher than normal 58 dB reading during that time). The sea was audible here at times and the low hum from transformers associated with the Sizewell B power station was also audible at times. There were also occasional light aircraft overhead.
	Evening	30-40	
	Night	30-35*	
Keepers Cottage (Map Ref OS1)	Day	40-50	Birdsong was the dominant sound source. Transformer hum audible throughout. Also reversing alarms and station P.A. announcements occasionally audible. Other sounds included occasional light aircraft, leaves rustling in the breeze and a barking dog.
	Evening	33-43	
	Night	34-40*	
Rosery Cottage (Map Ref OS4)	Day	40-48	Transformer hum dominant. Also activities at Sizewell B power station (reversing alarms, heavy plant movements and other similar sounds) audible at times. Some electrical crackle from power lines at times, birdsong, nearby dog barking and light aircraft. On the 5 and 6 June there was borehole digging in the adjacent field which affected readings here.
	Evening	40-45	
	Night	40-42	
Sizewell Common (Map Ref OS2)	Day	46-50	Transformer hum and Sizewell B on site activities. Activities within the car park area contributed. Between 0600 hours and 0700 hours many vehicles arrived at site on the approach road to the rear of the common, and levels at the monitoring location rose to around 49dB during this time.
	Evening	42-49	
	Night	42-46	

*Night-time values are given with the effect of the "dawn chorus" removed

3.0 Survey Methodology - Sound

Sound level surveys: general

3.1 Sharps Redmore has conducted baseline sound survey measurements at a total of 92 locations in and around the proposed development site (including associated developments), between 2014 and 2019. The locations of the survey positions reflect a range of noise sensitive receptors and have been selected with reference to the noise assessments within the Noise and Vibration chapters of the **ES** to include:

- Main development site – construction phases.
- Main development site – operational phase.
- Park and ride sites (associated developments) – construction and operational phases.
- Rail assessments - construction and operational phases.
- Road assessments - construction and operational phases.

3.2 The prefix associated with the baseline survey positions indicates the sound level assessment to which they relate as follows:

- MS prefix - construction and operation of the main development site proposed development.
- PRN and PRS prefix – assessments related to the park and ride north and south respectively.
- RR prefix – assessments of railway scenarios.
- RT prefix – relates to roadside survey positions (existing roads).
- SLR prefix – survey positions related to the proposed Sizewell link road.
- TVB prefix - survey positions related to the proposed two village bypass.

3.3 The full geographical spread of the baseline sound survey locations is extensive and therefore has been illustrated in a series of **Figures 11A.3** to **11A.9** in **Annex A**.

3.4 Photographs were taken at all baseline sound survey positions and the positions also individually mapped to be included in each site survey summary sheet (see **Annex B**).

3.5 The majority of the baseline sound level surveys conducted by Sharps Redmore took place between 15th July 2014 and 23rd September 2016. During 2019, a number of the main development site locations (MS prefix) were surveyed again to complete any data gaps from the original survey period and to validate previous survey results.

3.6 All surveys associated with the proposed Sizewell link road, and two village bypass were undertaken between 14th May and 2nd August 2019.

3.7 It is understood that measurement surveys within proximity of the existing Sizewell B station were undertaken during normal working operations.

Sound level surveys: survey equipment and methodology

3.8 All baseline sound measurements were undertaken using type 1 or class 1 sound level meters within laboratory calibration certification. Before and after all baseline sound measurements, field-calibration was undertaken and no adverse calibration drifts were found to have occurred.

3.9 The microphone at each survey location was fitted with an appropriate windshield at all times to minimise the influence of air movement across the microphone.

3.10 During all surveys, the sound level meters were set up to measure the following indicator parameters:

- L_{Amax} – a measure of the maximum sound pressure level (A-weighted) in a given measurement interval, usually measured with fast time weighting.
- $L_{Aeq,T}$ – the equivalent continuous sound level (A-weighted) over a specified time period, and representative of the ambient sound level.
- $L_{A90,T}$ – the level of sound exceeded for 90% of the specified time period and representative of the background sound level (A-weighted).

3.11 All baseline survey measurements (with the exception of MS39 at Leiston Abbey) were made in free-field conditions. Other than the ground, there were no reflective surfaces within 3.5 metres of the sound level meter in accordance with the 'Description and measurement of environmental noise' BS 7445-1:2003. The survey at MS39 was made at one metre from the façade of the building.

3.12 All baseline sound survey locations were attended by competent field operatives who recorded the sound level meter position, the weather conditions and a commentary on the significant sound sources at the survey position. This included identification of the sources of high maximum sound levels (L_{Amax}) during surveys where possible.

3.13 Where the field operative was in attendance throughout all survey periods at a given location, the weather and existing sound source information was updated as necessary throughout the survey. At survey locations where a meter was left unattended for longer term survey periods (24 hours and over), these observations were updated on a periodic basis and at equipment servicing intervals.

3.14 As far as was possible, all sound measurements were made away from trees, and with little to no precipitation observed or forecast. On the occasions when a field operative experienced a period of heavy or sustained rain, the surveys were stopped and either recommenced once the rain had ceased, or the survey was rescheduled and repeated on another day. Wind speeds were monitored during surveys where possible.

3.15 Where high winds have been noted by the field operative during a baseline sound survey to the extent that the gathered data is unreliable, the data has been discarded and additional surveys have been undertaken. First-hand information on wind speeds was not available for all of the longer-term sound measurement positions. As a precaution therefore, any data which upon analysis appeared unreliable by means of either heavy rain

or high winds (as indicated by publicly available historical weather data), was removed or noted in subsequent data analysis and site summaries.

3.16 During some surveys, unexpected events or unusual sound sources were found to be contributing to the sound climate. A professional judgement was then made as to whether the source was typical of the location and time of day or not. In most cases the location was surveyed again to ensure baseline sound measurements gathered were representative of the typical sound environment for that location.

4.0 Survey Methodology – Vibration

Vibration level surveys: general

4.1 Sharps Redmore have conducted pre-development vibration surveys at seven locations in and around the town of Leiston. The measurement positions V1 to V7 are illustrated in **Figure 11A.10**.

4.2 These surveys were undertaken at a select few locations to provide an indication of 'background' or pre-development vibration dose values (VDVs) at these positions.

4.3 The pre-development baseline vibration surveys were undertaken at locations related to potential rail scenarios associated with the proposed development. These surveys were undertaken at locations representative of residential properties in similar proximity to the rail tracks.

4.4 Some baseline vibration surveys were undertaken in close proximity to the existing branch railway line that exists between the towns of Saxmundham and Leiston. No passenger service is operated on this line at present. It is understood that no trains were operated during any baseline vibration surveys as Sizewell A station flask trains had ceased to operate shortly before the surveys commenced.

4.5 Photographs were taken at all baseline vibration survey positions and the positions also individually mapped to be included in each site survey summary sheet (see **Annex C**).

4.6 All the baseline vibration surveys were undertaken and completed within the period of 30th July to 31st October 2014.

Vibration level surveys: survey equipment and methodology

4.7 The baseline vibration measurements were undertaken using a Vibrock V901 digital seismograph and tri-axial transducer. The equipment is able to measure vibration dose values (VDV) (m.s-1.75) in the axis x, y and z simultaneously.

4.8 The VDV is a measure of the vibration energy measured over a fixed period of time, and typically reported over a 16 hour day (0700 – 2300 hours) and an 8 hour night (2300 – 0700 hours) for comparison with thresholds established in BS 6472-1:2008[2].

4.9 At each of the baseline vibration survey locations, the field operative identified the most suitable ground conditions for the mounting of the transducer to achieve the best connection with the ground. Where no hardstanding was available, then compacted hard ground was sought.

4.10 Locations V1, V2 and V5 were on private property for which SZC Co. arranged access to enable surveys to take place. The remaining survey locations all took place on publically accessible land.

2. BS 6472-1:2008. Guide to evaluation of human exposure to vibration in buildings. Part 1: vibration sources other than blasting. British Standards Institute, June 2008.

4.11 At locations V1, V2 and V5, it was possible to secure the equipment and leave it measuring for extended periods to capture a number of full 16 hour day (0700 – 2300 hours) and 8 hour night (2300 – 0700) periods.

4.12 At the remaining locations, measurements were made in hourly samples representative of various times of the day and night, and over a number of different days.

4.13 For each baseline vibration survey the equipment measured the VDV ($m.s^{-1.75}$) in each of the three axis x - parallel, y – perpendicular, and z – vertical relative to a fixed point.

4.14 The Vibrock equipment applies the frequency weightings, W_b to the horizontal x and y axis values, and W_d weighting to the vertical z axes results. These weightings reflect the frequency and direction in which humans perceive vibration. Applying these weightings allows the overall levels measured to be interpreted in terms of perception, comfort or adverse comment for whole-body vibration (BS 6472-1:2008).

5.0 Selection of Noise Sensitive Receptor Locations

5.1 Baseline sound level surveys have been undertaken for the most part at locations representative of residential receptors in the study area. Other receptors, considered sensitive to potential changes in sound climate, have also been identified and included in the baseline survey program, for example, Old Abbey Care Home and Leiston Abbey.

5.2 These sensitive receptors have been identified across the study area through site observations, analysis of maps and web-based tools such as GoogleEarth. The baseline monitoring positions have then been selected at locations representative of potential noise sensitive receptors accordingly. The full set of baseline sound survey locations adopted between 2014 and 2019 are illustrated in **Figures 11A.3** to **11A.9**.

5.3 The following paragraphs describe groups of baseline sound level surveys relevant to the various noise assessments within the **ES** chapters.

Main development site survey locations – MS prefix

5.4 A total of 43 no. baseline sound survey positions were identified and surveyed. These positions reflect noise sensitive receptors, predominantly residential receptors, that would be sensitive to noise from the construction and operational phases of the proposed development. Receptors were chosen to represent a wide range of distances and orientations away from the proposed main development site areas. Some of these receptor locations would also be relevant to rail scenario assessments.

5.5 Many of these surveys were fully attended by competent field operatives. Attended surveys typically comprised a set of six, two hour measurement periods across a 24 hour day. By this method, representative measurements were gathered at sensitive times of the daytime (0700 to 2300 hours) and night-time (2300 – 0700 hours) periods.

5.6 Some survey locations allowed for the secure siting of a sound level meter, in these positions it was possible to gather a minimum of 24 hours data, and in some cases a week or more. These longer duration surveys were largely unattended, but with a field operative making observations at intervals during the overall survey period. Surveys undertaken over 7 or even 14 day periods required the field operative to conduct equipment servicing visits at which time observations of the sound climate were also recorded and the weather conditions noted.

5.7 Most measurement locations were on publicly accessible land. Landowner permission was sought and agreed at all other sites where baseline sound survey locations were selected. Liaison with local residents (as necessary) at some sites was made by SZC Co. Special arrangements were necessary with the owner of Leiston Abbey to enable sound measurements in the grounds of this property which included a measurement position near a window high on the southern façade of the building. Similar permission and arrangements were required with the owner of Potter's Farm to enable surveys at position MS4.

5.8 The majority of these measurement surveys were undertaken between 2014 and 2015. A selection of 14 of these main development site baseline survey locations were re-surveyed between 22 May and 10 July in 2019. It is understood that there have not been any major changes or developments that may have substantially changed the sound climate as

surveyed in the earlier period. Nonetheless, a selection of the main development site survey locations were identified for an additional 'validation' survey to check that no significant changes to the sources or the typical ambient and background sound levels had occurred at those locations.

5.9 The fourteen locations selected for additional surveys in 2019 were principally those where preliminary noise assessments had identified a potential change in sound levels from the proposed development during either construction or operational phases. At these locations, Sharps Redmore typically undertook attended measurements for an hour during the morning, and a further hour during the afternoon period.

Park and ride (associated developments) site survey locations – PRN and PRS prefix

5.10 Three locations were surveyed with respect to the proposed park and ride north scheme. Each location was monitored for two hours in six intervals across a 24 hour day to include daytime and night-time periods and at positions representative of the nearest residential properties. The survey location PRN1 was surveyed during the school summer holiday period and, following a request from a nearby resident who was concerned that levels might be different in term-time, a further short validation survey was conducted at this location in October 2014.

5.11 Three locations were also surveyed with respect to the proposed park and ride south scheme. Baseline sound data was captured at these sites during daytime and night-time periods at positions representative of the nearest residential properties.

5.12 The field operative noted weather conditions, existing sound sources and specific site location details at each position.

Rail scenario site survey locations – RR prefix

5.13 Nine locations were selected and baseline sound data gathered at receptor locations related to potential rail scenarios associated with the proposed development. Positions included locations between Saxmundham and Leiston (Saxmundham to Leiston branch line), as well as locations further away from Sizewell along the existing rail network between Saxmundham and Ipswich (East Suffolk Line). Again, locations were chosen to be representative of the nearest residential properties within these specific study areas.

5.14 All the rail-related baseline survey positions were attended by a competent field operative throughout the survey periods, which were conducted in six sets of two hour measurements during daytime and night-time periods.

Roads (existing) site survey locations – RT prefix

5.15 Sixteen baseline sound surveys were conducted at positions in proximity of the existing local roads around the Leiston, Saxmundham and Darsham study areas.

5.16 Most of the roadside baseline sound surveys were conducted over a three hour period between the hours of 1000 and 1700 in accordance with the calculation of road traffic noise (CRTN[3]) shortened measurement methodology. A shorter one hour daytime measurement was undertaken in 2019 at the RT16 location with respect to one of the road improvement schemes at the A12/A144 road junction.

5.17 At locations RT4 and RT6, an additional attended baseline survey measurement was undertaken between the night-time hours of 0500 and 0700. This was considered a potentially sensitive time to any changes in road traffic patterns and therefore extra baseline data was sought.

5.18 During surveys the field operative made notes at each location of the road surface type, distance from the edge of the road, sound sources other than road traffic and took site photographs. Measurements were only undertaken with dry road surface conditions.

5.19 Sharps Redmore undertook repeat surveys with the same methodology at locations RT3, RT4, RT6, RT11, RT12 and RT15 during the 2019 validations surveys.

Proposed sizewell link road site survey locations – SLR prefix

5.20 With respect to the proposed Sizewell link road, Sharps Redmore analysed maps, and made site investigation visits to identify individual, or groups of residential properties that could become close to the proposed new road were it to be constructed and operated.

5.21 A total of nine locations were identified for surveys, and field operatives undertook attended surveys at all locations to capture samples of the typical ambient and background sound levels during morning and afternoon periods.

5.22 Most of these locations were also visited during the night-time assessment period (23:00 – 07:00 hours) and a short sample measurement made of typical ambient and background sound levels.

5.23 The field operative recorded the principal sound sources at each survey location, weather conditions, and took photographs for the summary survey sheets.

Proposed two village bypass site survey locations – TVB prefix

5.24 As with the proposed Sizewell link road, Sharps Redmore analysed maps and made site investigation visits to identify individual, or groups of residential properties, that could become close to the proposed two village bypass scheme were it to be constructed and operated.

5.25 A total of nine locations were identified for surveys, and field operatives undertook attended surveys at all locations to capture samples of typical ambient and background sound levels during morning and afternoon periods.

5.26 Most of these locations were also visited during the night-time assessment period (23:00 – 07:00 hours) and a short sample measurement made of typical ambient and background sound levels.

3. Calculation of road traffic noise (CRTN). Department of Transport, Welsh Office, 1988.

5.27 The field operative recorded the principal sound sources at each survey location, weather conditions, and took photographs for the summary survey sheets.

6.0 Results of Baseline Surveys

Sound

6.1 The baseline sound survey data have been collated along with a site map and photograph for each location. A summary sheet has been compiled for each survey location to comprise a description of the sound climate at each location and a graph of the measured baseline sound data.

6.2 Summary sheets for all 92 baseline sound survey locations are presented as **Annex B** to this report.

6.3 Where longer term survey data has been gathered, then that data has been graphed at each location, with graphs presenting the maximum sound levels (L_{Amax}), the ambient sound level (L_{Aeq}) and the background sound level (L_{A90}) in decibels. Where shorter duration surveys only have been possible or necessary, then this data has been tabled with reference to the time and duration of the survey.

6.4 Where a position was surveyed in six, two hour samples, then all data is presented in the graphs. Where survey data was gathered for a full 24 hours or longer, then the graph represents a typical day of the baseline sound climate at that location.

6.5 Alongside these baseline summary sheets, all the data has been compiled in summary tables in **section 7**.

6.6 Within the summary tables, the raw baseline sound survey data has been reviewed and the typical ambient (L_{Aeq}), and background (L_{A90}) sound levels presented for daytime (07:00 – 23:00 hours) and night-time (23:00 – 07:00) periods. The summary table data represents a professional judgement on the typical ambient and background sound levels during these periods. It is recognised that there would be variation in sound levels on a daily, and seasonal basis at any survey location, and particularly at locations close to the coast.

Vibration

6.7 The baseline vibration survey data have been collated along with a site map and photograph for each location. A summary sheet has been compiled for each baseline sound survey location to comprise notes from each location and a table of full measured baseline vibration data.

6.8 Summary sheets for the seven baseline vibration survey locations are presented as **Annex C** to this report.

6.9 VDVs ($m.s^{-1.75}$) are presented either as hourly values, or in 16 hour day (07:00 – 23:00 hours) and 8 hour night (23:00 – 07:00) reference periods at locations V1, V2 and V5. This enables direct comparison with the VDV reference times and criteria related to human exposure as found in BS 6472-1:2008.

6.10 The baseline vibration information is not intended as an assessment, but a presentation of the likely pre-development conditions at selected receptor locations. VDV levels collected at all six baseline survey locations can however be considered to be low when compared with thresholds within BS 6472-1:2008.

7.0 Summary Baseline Sound Level Tables

Table 7.1 – Main development site (MS Pre-fix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Eastbridge South	MS1	50	32	38	26
Lower Abbey Farm	MS2	55	34	38	28
Leiston Old Abbey	MS3	38	35	40	35
Land East of Potters Farm	MS4	43	35	30	25
Land South and West of Minsmere	MS5	36	29	31	28
The Round House	MS6	41	35	38	35
Ash Wood Cottages	MS7	45	40	39	35
Abbey Marshes	MS8	45	40	35	33
Coast Path North	MS9	43	39	41	39
Bridleway Centre	MS10	45	35	35	28
Hill Farm	MS11	45	37	33	25
Leiston Abbey, rear	MS12	42	38	30	27
Old Abbey Farm Lodge	MS13	71	42	50	28
Abbey Cottage	MS14	56	41	40	30
Old Abbey Care Home	MS15	47	43	34	30
Sizewell Marshes West	MS16	45	36	34	27
Sizewell Marshes East	MS17	40	39	40	39
Cakes and Ale Caravan Site	MS18	50	42	40	33
Leiston North	MS19	70	40	60	30
Coastal Path at Site	MS20	50	48	48	47
The Gatehouse, Saxmundham Road	MS21	70	40	50	30
Leiston Station	MS22	65	45	45	30
Leiston Centre	MS23	47	40	40	30
Valley Road, Leiston	MS24	45	40	35	28
Sandy Lane West	MS25	50	45	45	30
Keepers Cottage	MS26	42	35	30	28
Rosery Cottage	MS27	47	45	47	45
Sizewell Village	MS28	48	43	43	40
Leiston Rail Crossing, King George's Avenue	MS29	65	45	50	35
Crown Lodge	MS30	60	45	45	30
Sandlings	MS31	40	35	32	30
Sizewell Campsite	MS32	50	48	50	48
Leiston West	MS33	45	38	33	30
Minsmere (Bittern Hide)	MS34	35	30	33	27
Minsmere (Post N)	MS35	38	30	32	25
Minsmere (South Hide)	MS36	40	37	40	37

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Leiston Abbey Courtyard	MS38	43	35	30	26
Leiston Abbey Residential Block	MS39	45	37	35	26
Cakes and Ale Entrance	MS40	53	36	40	26
Sizewell Gap	MS41	54	45	45	40
Halfway Cottages (Sizewell Gap Road)	MS42	53	45	40	35
Heath View, Eastern end	MS45	46	40	40	35
Heath View, Southern end	MS46	42	37	30	28

Table 7.2 – Park and ride (PRN and PRS prefix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Willow Marsh Cottage (School holiday)	PRN1A	57	40	45	32
Willow Marsh Cottage (Term time)	PRN1B	55	35	-	-
Willow Marsh Lane/A12 Junction	PRN2	60	47	55	30
Darsham	PRN3	74	55	65	40
Hacheston	PRS1	68	38	50	25
The Lodge, Lower Hacheston	PRS2	55	42	40	28
Ash View, Lower Hacheston	PRS3	68	55	52	35

Table 7.3 – Rail assessments (RR prefix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Little Bealings	RR1	47	38	40	30
Martlesham Creek	RR2	48	40	40	35
Woodbridge, Deben Road	RR3	50	40	40	33
Bromeswell	RR4	57	40	45	37
Campsea Ashe	RR5	50	38	40	30
Benhall	RR6	47	40	47	30
Saxmundham, Alma Place	RR7	58	44	45	30
Clay Hills	RR8	50	38	40	31
Melton	RR9	51	47	48	41

Table 7.4 – Existing road assessments (RT prefix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
A1120 Yoxford High Street	RT1	62	45	-	-
Yoxford Junction	RT2	72	63	-	-
B1122 Middleton Moor	RT3	70	43	-	-
B1122 Middleton	RT4	63	38	60	35
Westleton	RT5	56	37	-	-
Theberton	RT6	67	50	62	35
Gatehouse, Saxmundham Road	RT7	59	45	45	30
Leiston Station	RT8	67	49	45	28
Knodishall	RT9	52	44	-	-
Snape Junction	RT10	70	53	-	-
Farnham West	RT11	73	59	-	-
Stratford St Andrew	RT12	50	48	-	-
Little Glemham	RT13	73	60	-	-
Marlesford	RT14	77	63	-	-
Theberton East	RT15	67	45	-	-
A12/A144 Junction	RT16	71	52-60	-	-

Table 7.5 – Proposed Sizewell link road (SLR prefix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Fir Tree Farm	SLR1	50-51	38-44	-	-
Buskie Farm	SLR2	46-50	38-41	30	23
Fordley Hall	SLR3	45-47	36-40	31-33	25-28
Fordley Road	SLR4	42-43	27-31	31-34	25-28
B1122 Yoxford Road	SLR5	45-50	39-40	20-32	18-25
B1122 Hill Farm	SLR6	52-54	36-37	48	25
Dovehouse Farm	SLR7	43-44	34-36	25-30	20-28
Pretty Road	SLR8	40-41	33-34	-	-
Theberton Grange	SLR9	43-44	37-41	26-29	23-25

Table 7.6 – Proposed two village bypass (TVB prefix) survey summary results

Receptor Name	Receptor Reference	Typical Sound Level (day)		Typical Sound Level (night)	
		$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)	$L_{Aeq,T}$ (dB)	$L_{A90,T}$ (dB)
Main Road (A12) Stratford	TVB1	74	51-57	60	23
Parkgate Farm	TVB2	46-47	42-44	49	26
Farnham Church	TVB3	52-53	35	47	31
Farnham Hall	TVB4	49-51	37	46	29
Pond Barn Cottages	TVB5	43-46	31-32	-	-
Farnham Hall Farmhouse	TVB6	39-44	34	46	29
Mollett's Farm	TVB7	46-47	43	-	-
The Old Police House	TVB8	64-66	50-51	57	23
Friday Street	TVB9	59	48	44	27

ANNEX A

FIGURES

Figure 11A.1 - AMEC sound survey locations

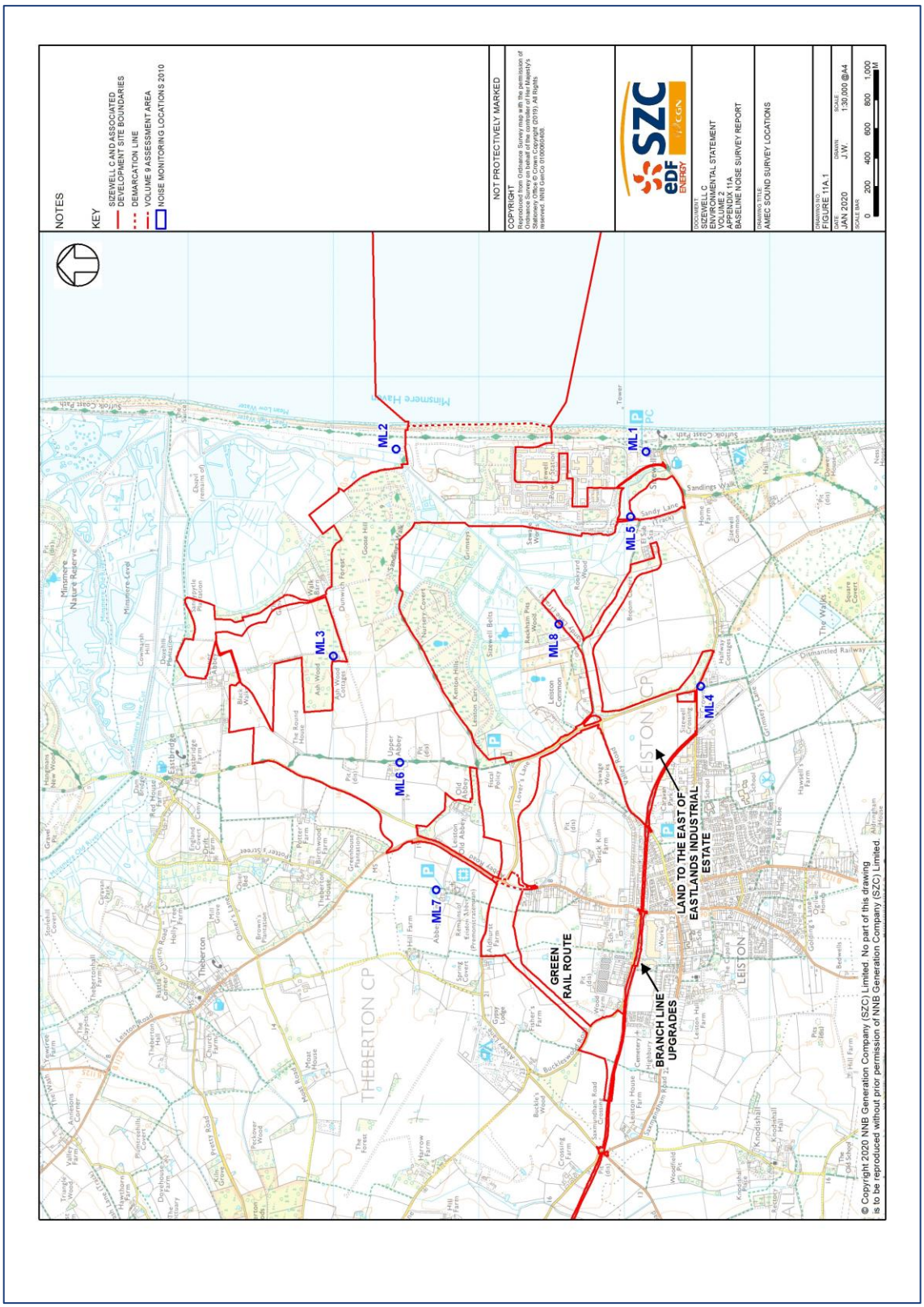


Figure 11A.2 - Outage sound survey locations

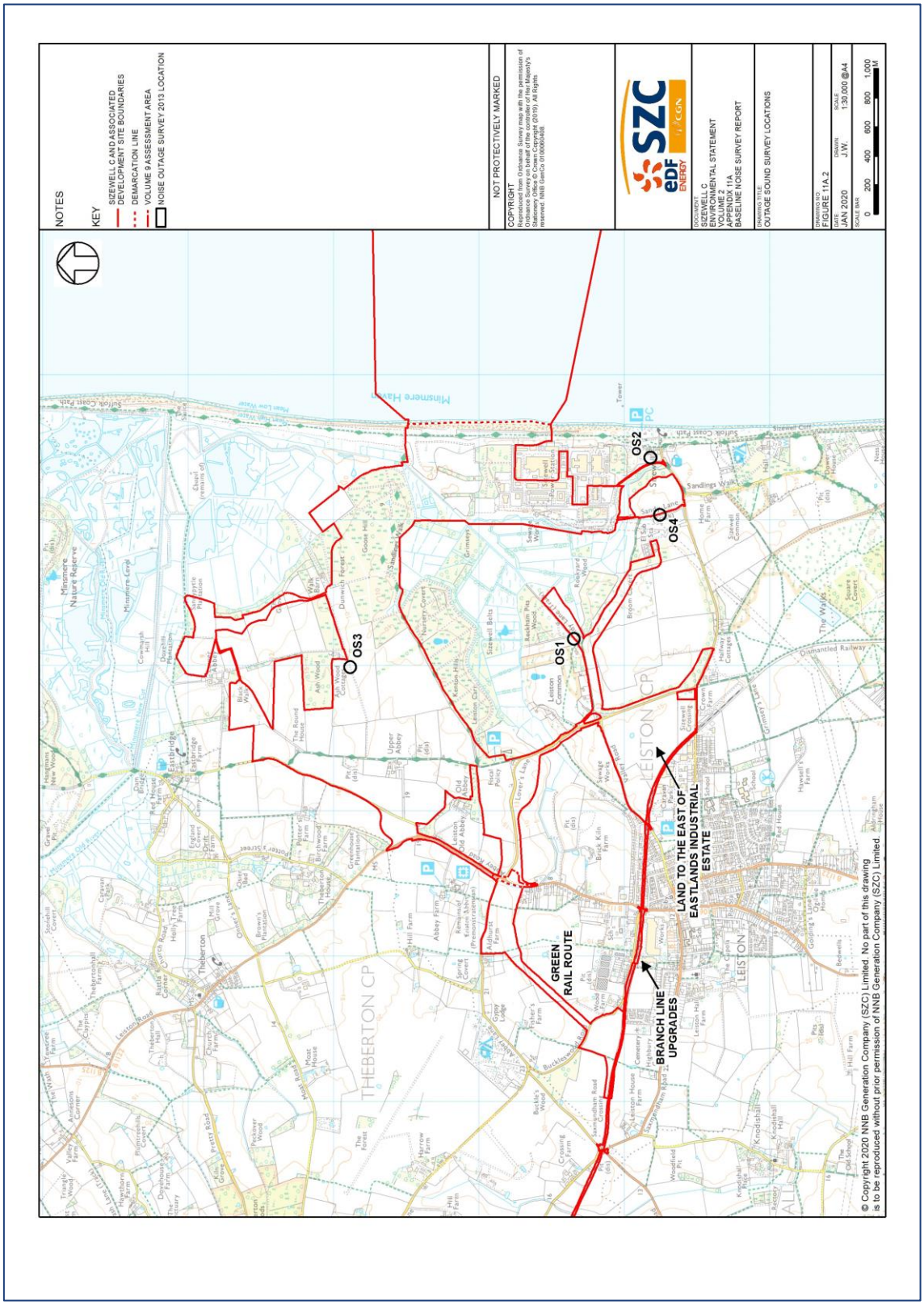


Figure 11A.3 - Sharps Redmore rail sound survey locations

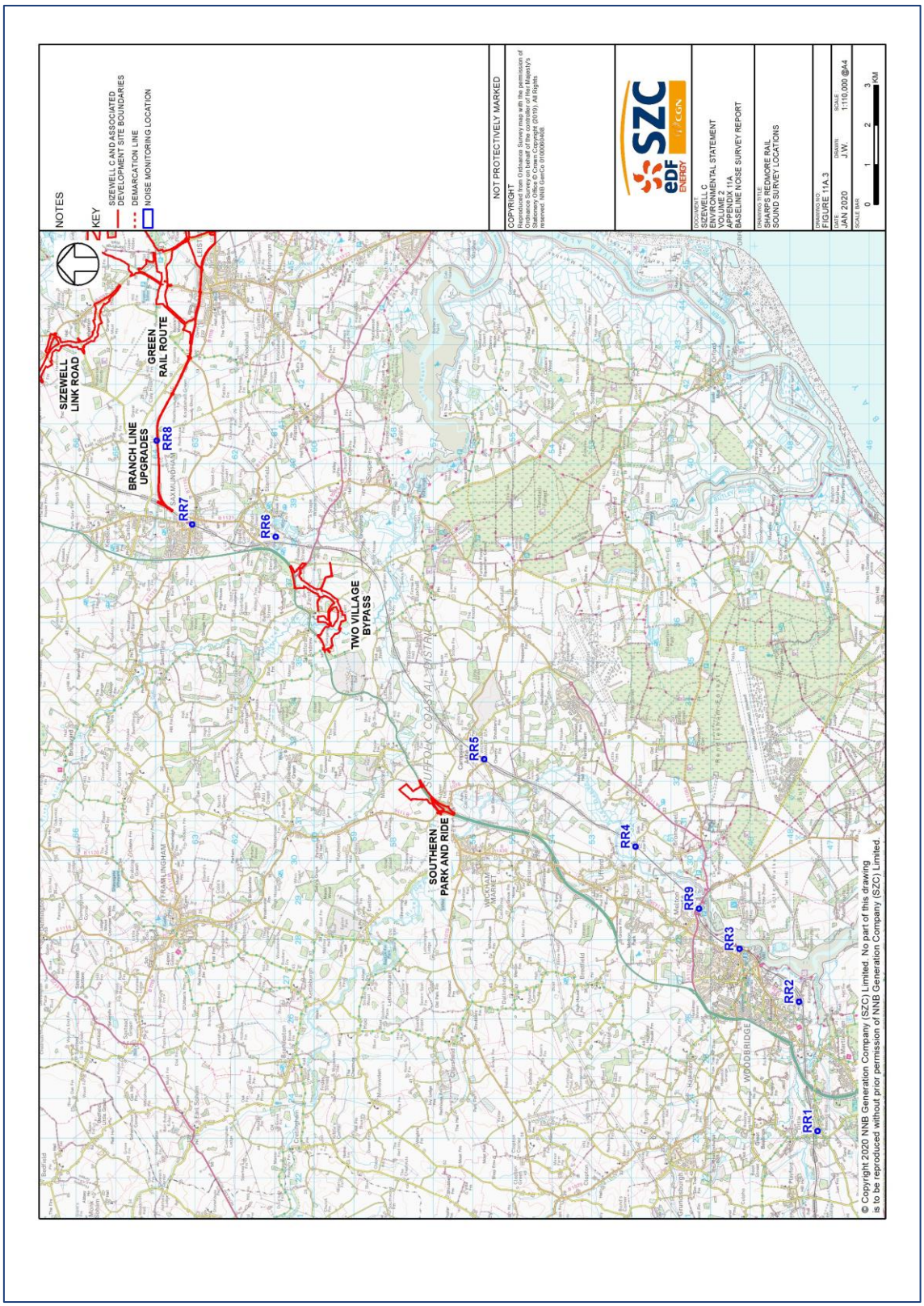


Figure 11A.4 - Sharps Redmore Road (existing) sound survey location

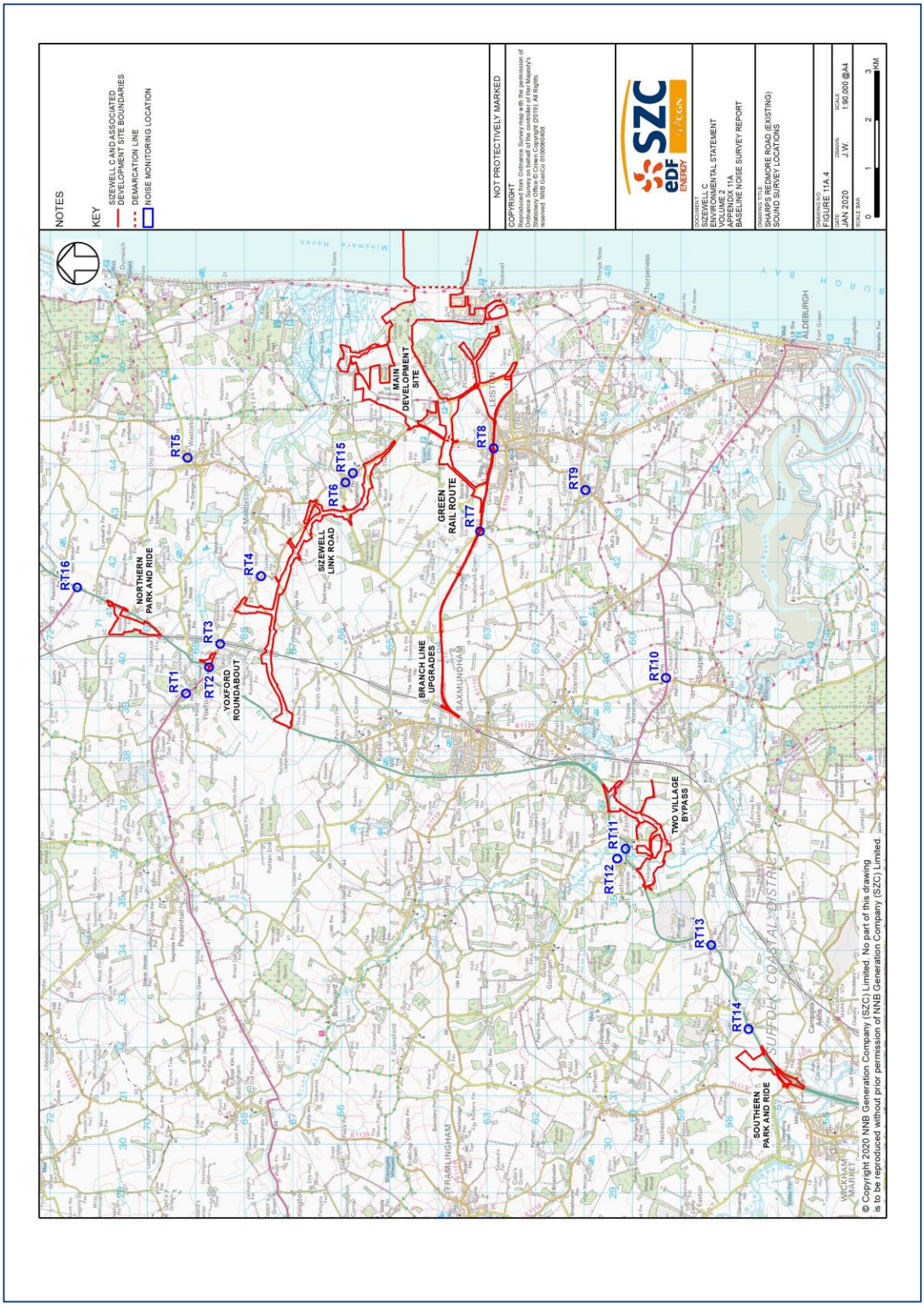


Figure 11A.5 - Sharps Redmore main development site sound survey locations

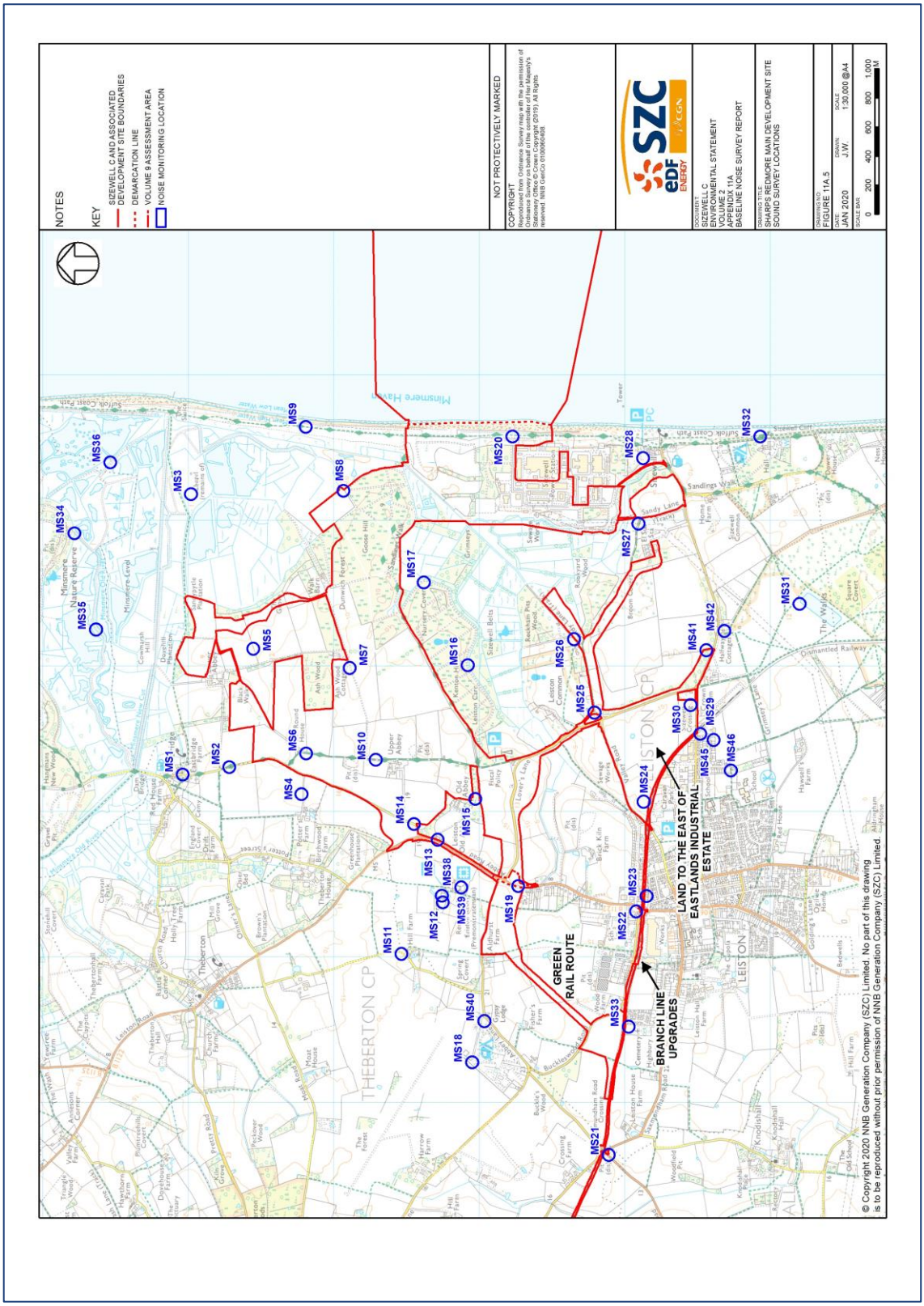


Figure 11A.6 - Sharps Redmore park and ride north sound survey locations

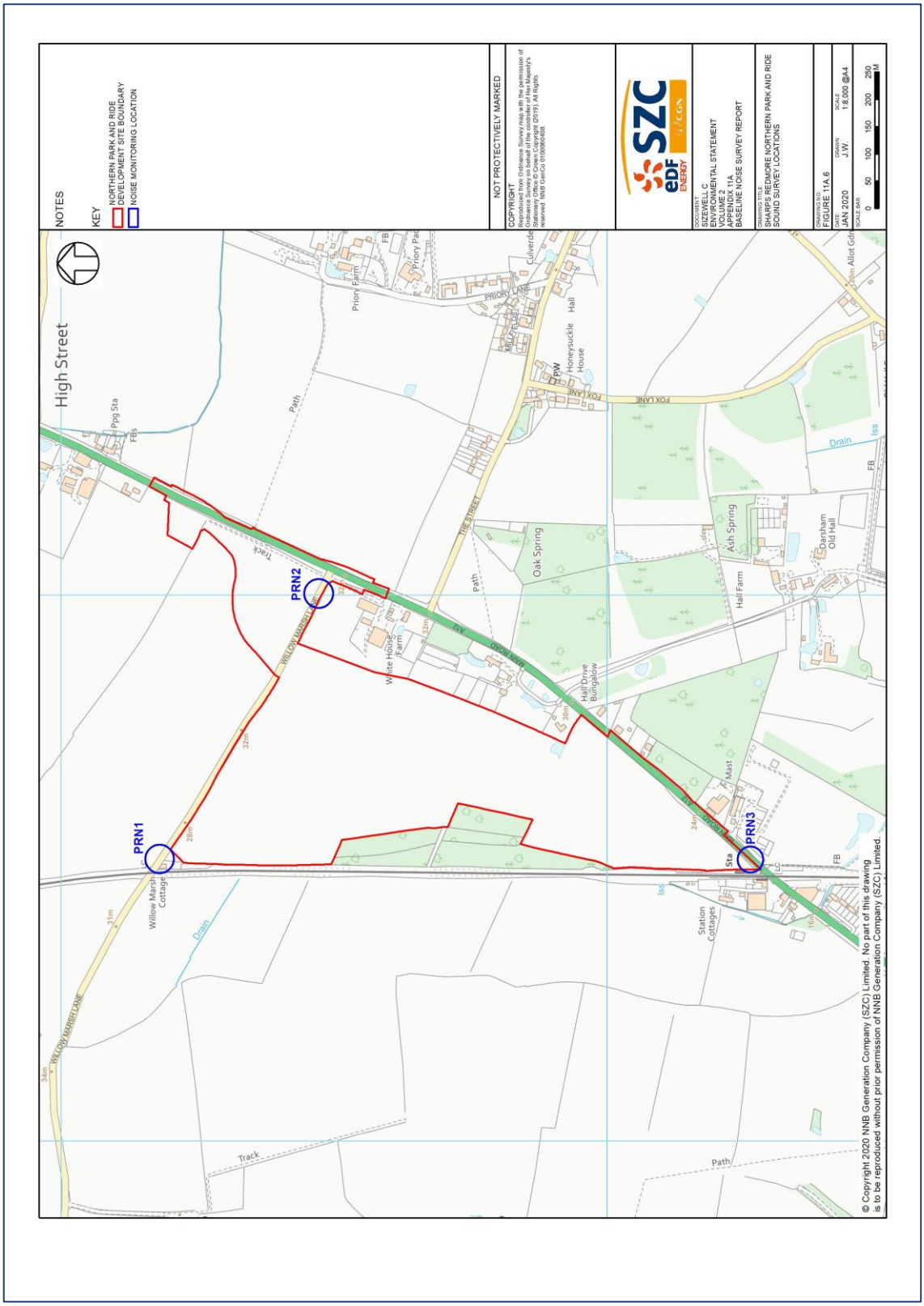


Figure 11A.7 - Sharps Redmore park and ride south sound survey locations

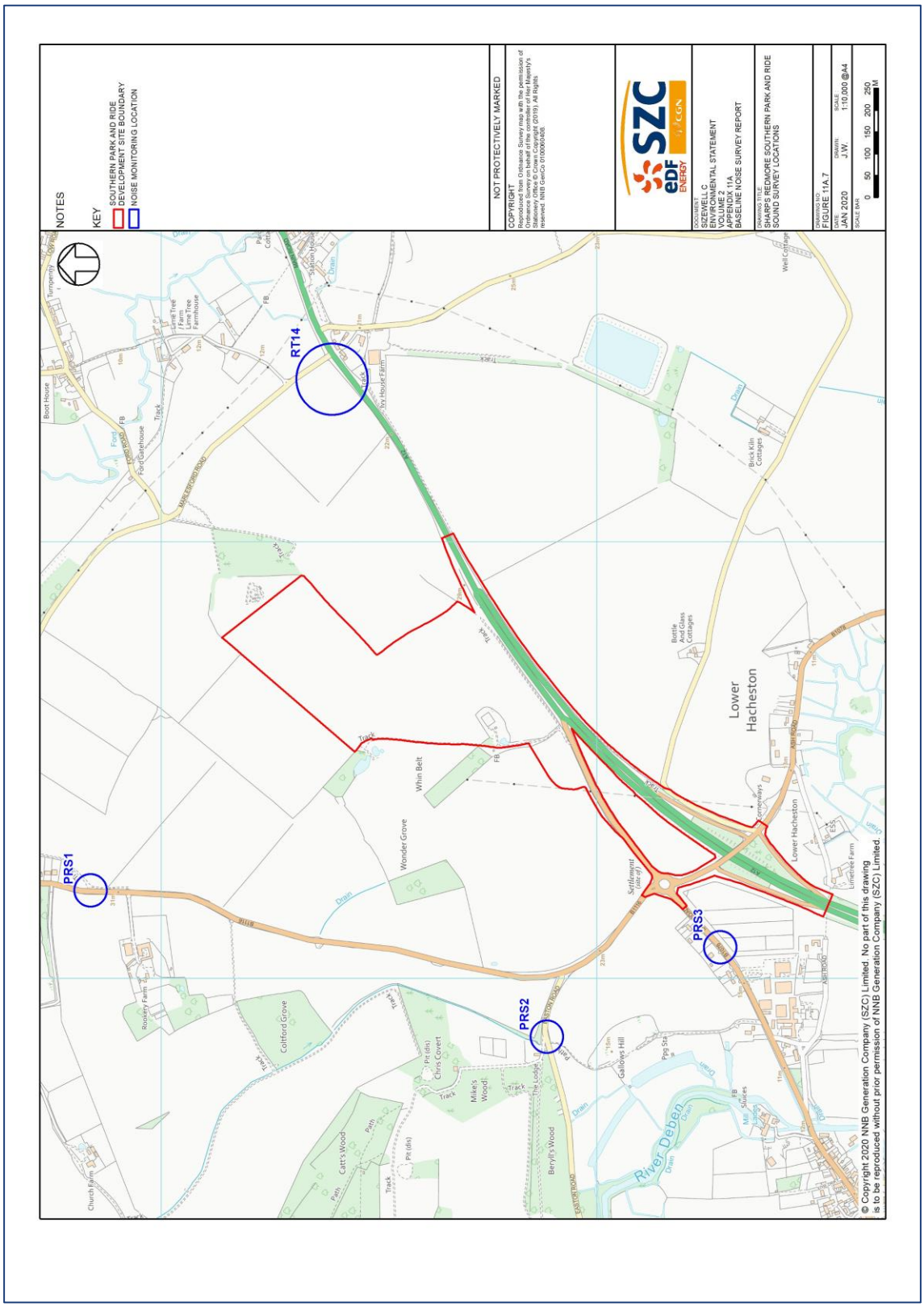


Figure 11A.8 - Sharps Redmore Sizewell link road sound survey locations

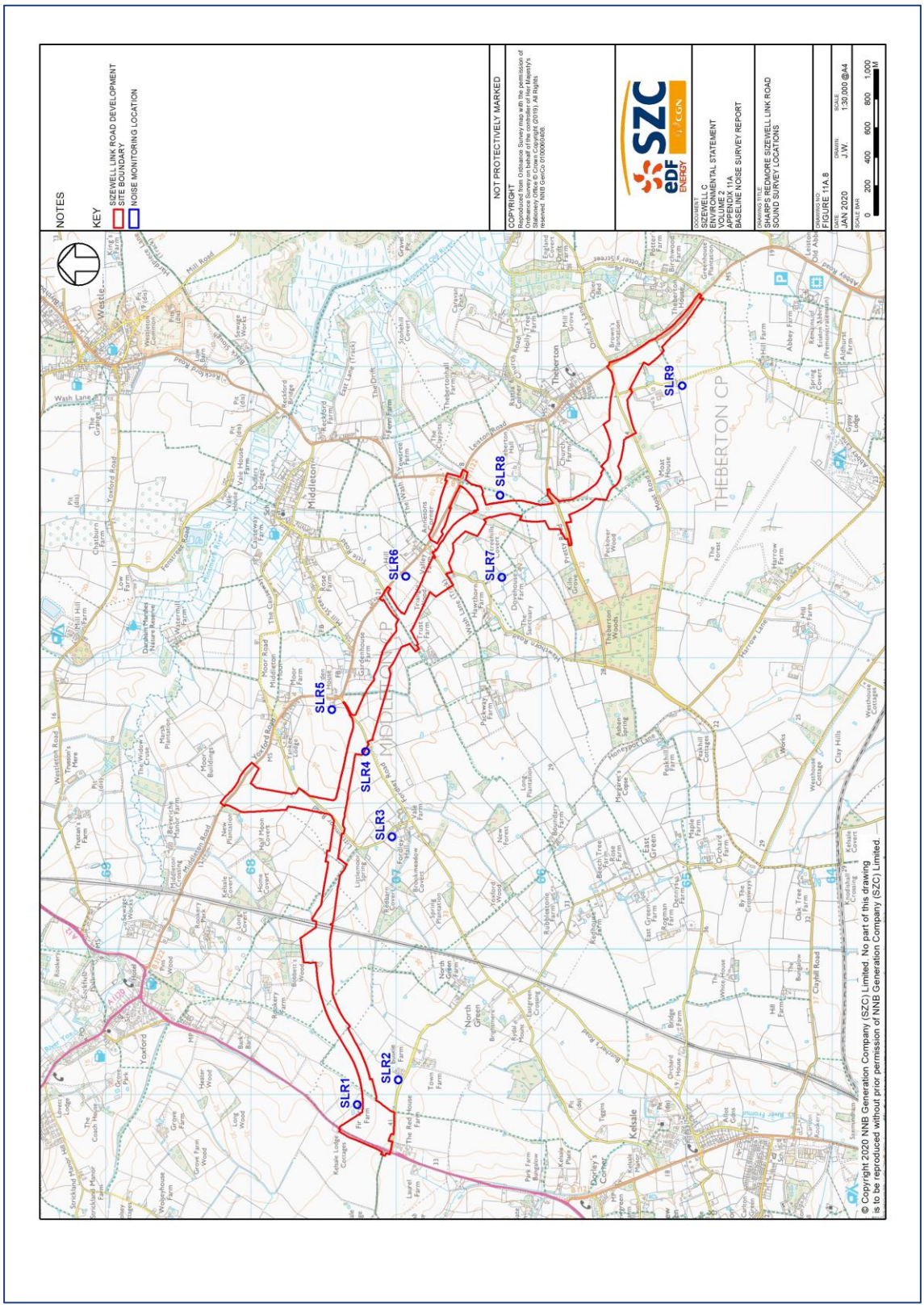


Figure 11A.9 - Sharps Redmore two village bypass sound survey locations

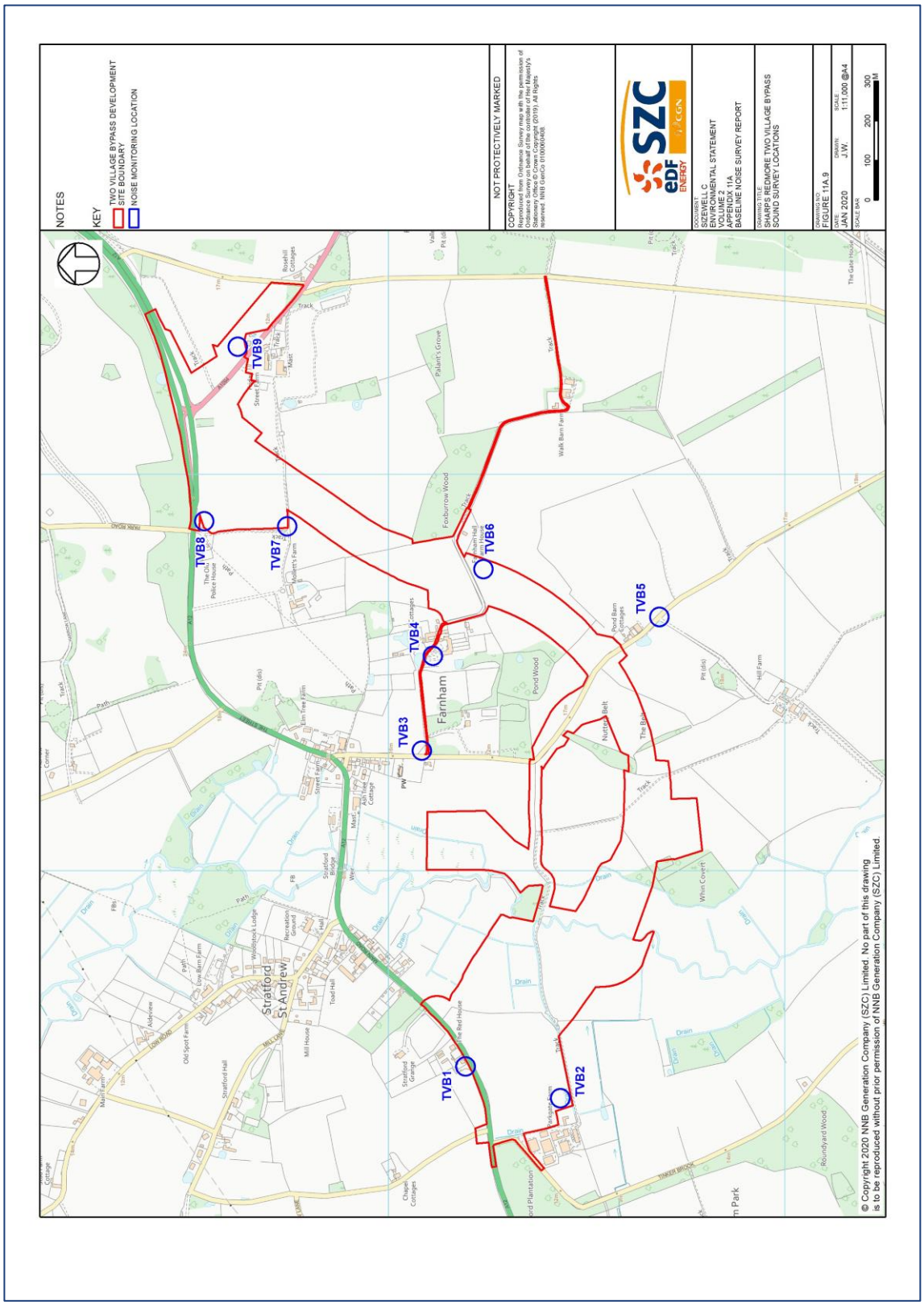
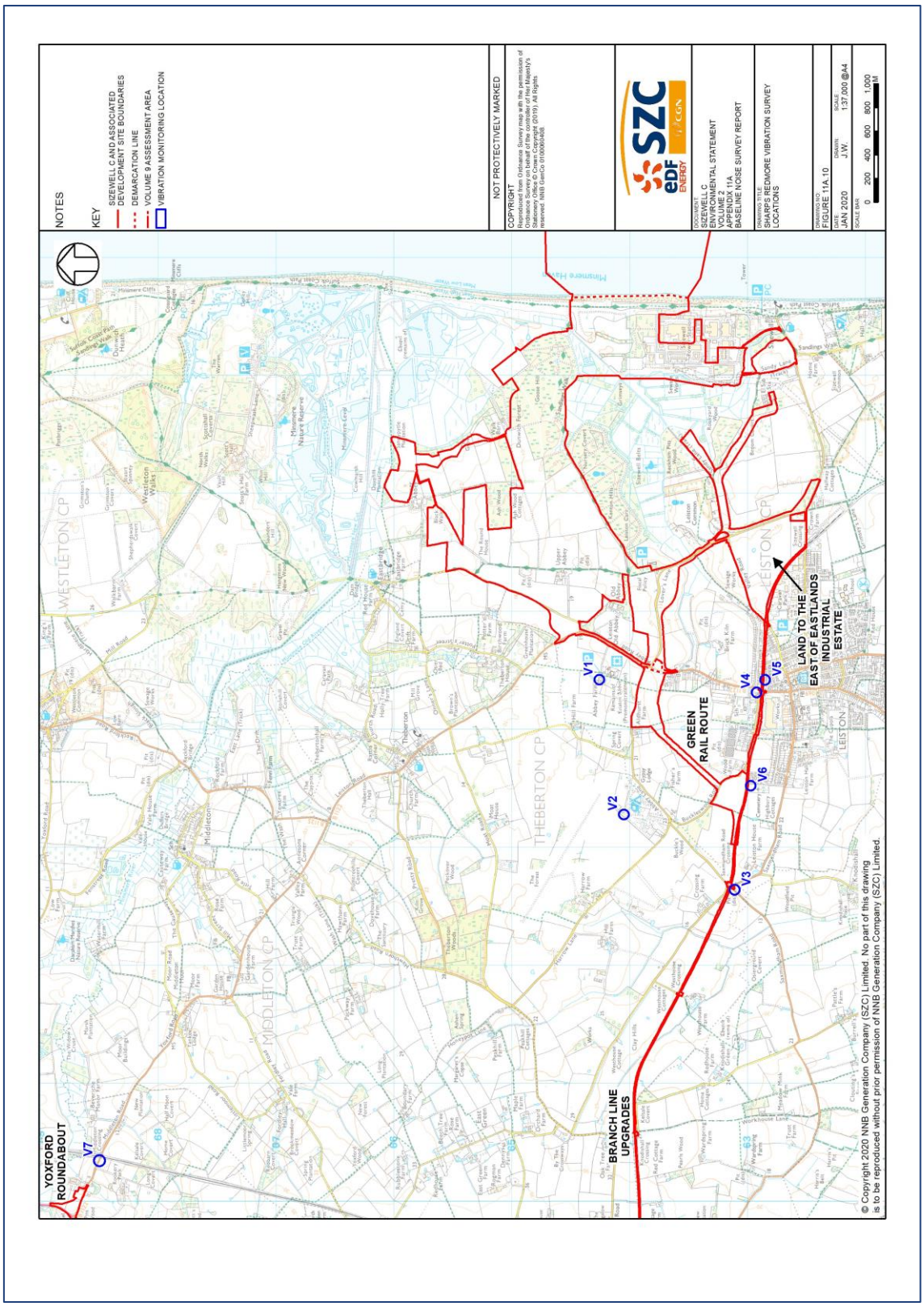


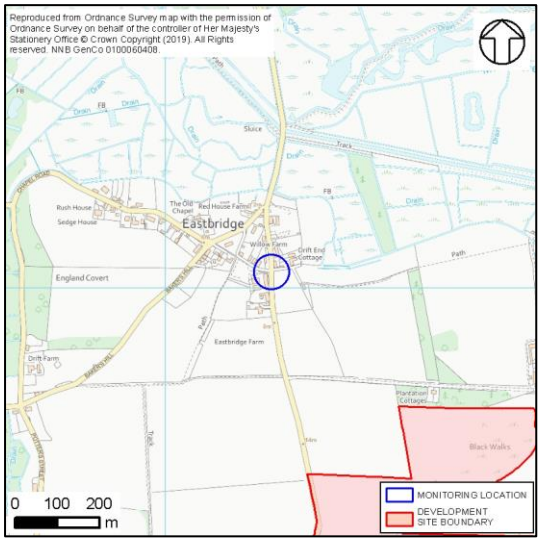
Figure 11A.10 - Sharps Redmore vibration survey locations



ANNEX B

BASELINE SOUND SURVEY SUMMARY SHEETS

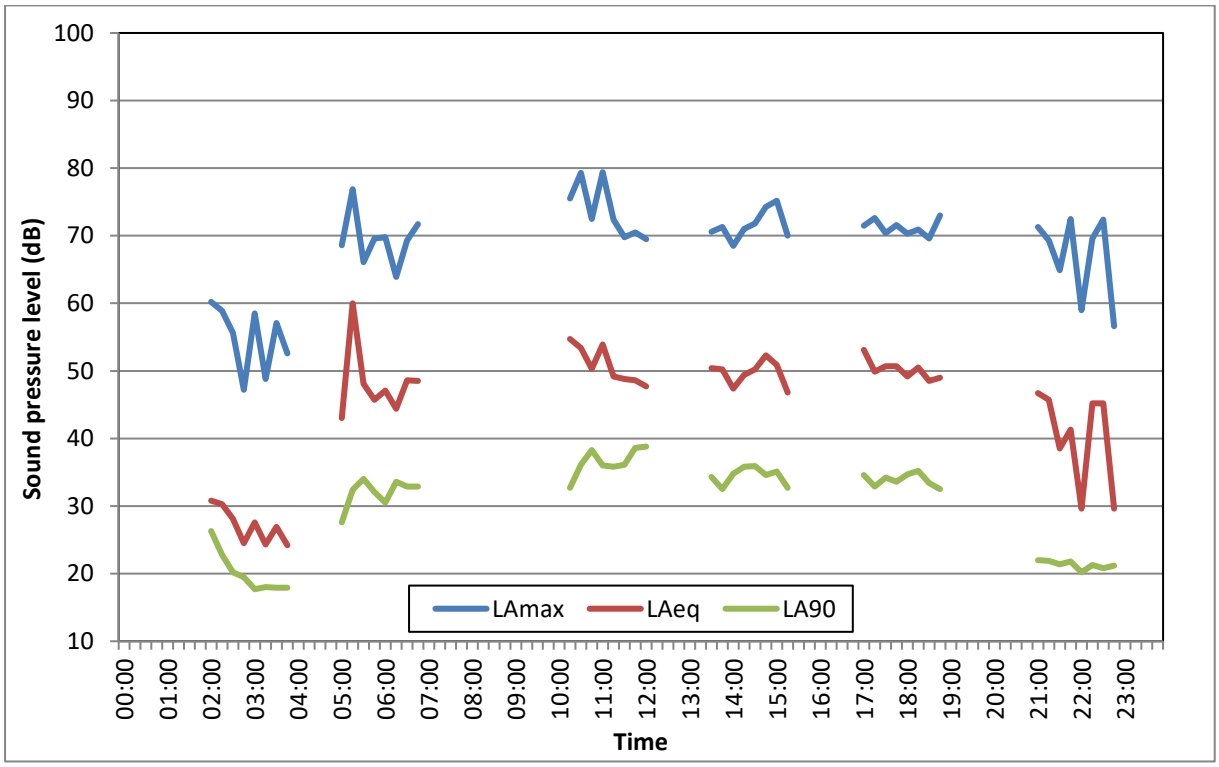
MS1 - Eastbridge South



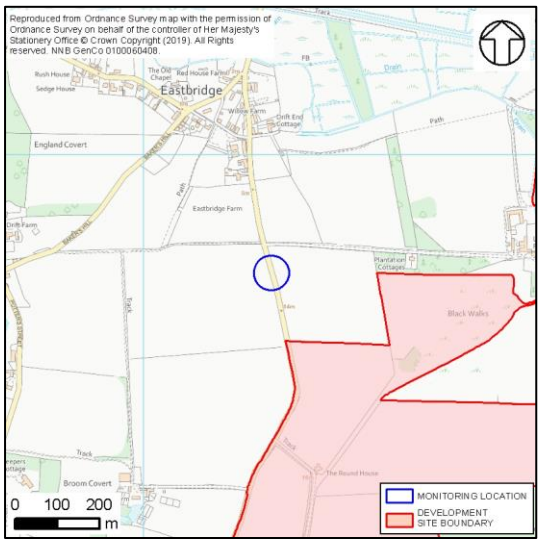
Site Description: Free-field location at edge of village, on public footpath, five metres from minor road.

Dates: 4, 6, 7 August 2014

Notes: The sound climate during the attended part of survey was comprised of vehicles on local and distant roads, occasional aircraft, tractors, barking dogs, birdsong from various species and general farm activities. Ambient sound levels were typically around 50dB during the daytime with occasional events up to 79dB, mainly from vehicle pass-bys. Background sound levels were typically around 32dB during the day, dropping to around 20dB at times during the night.



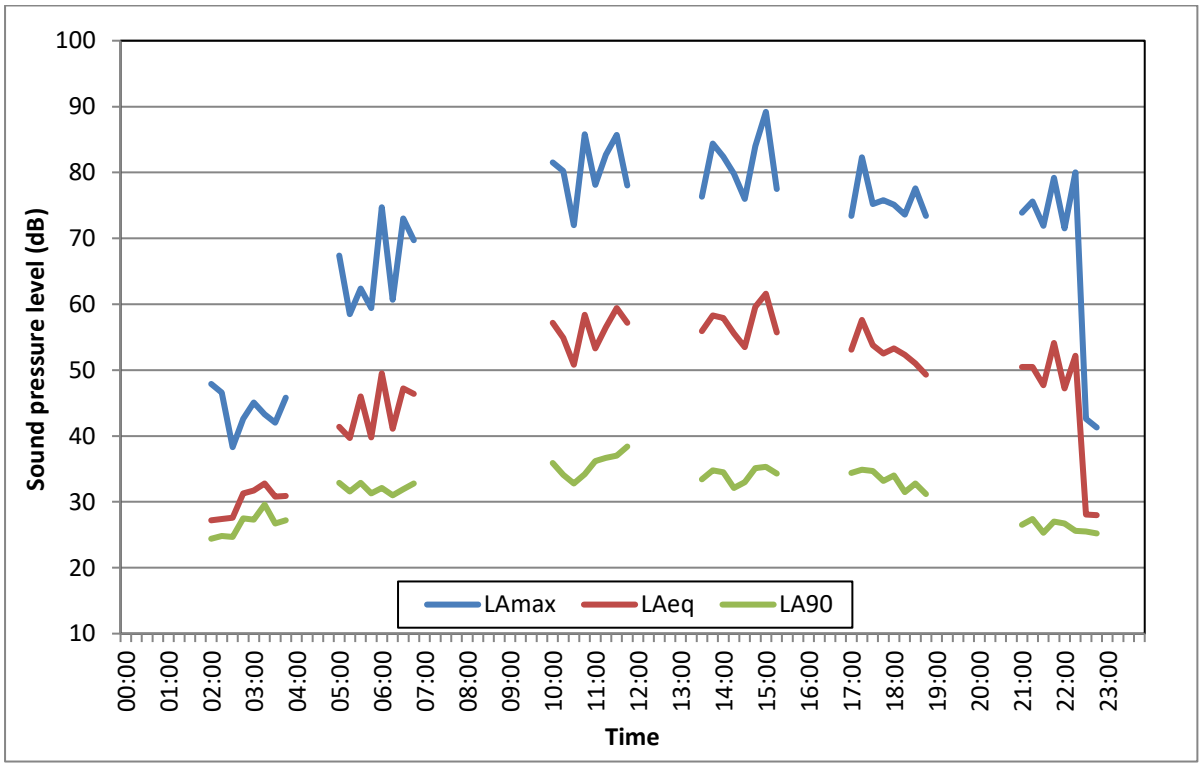
MS2– Lower Abbey Farm



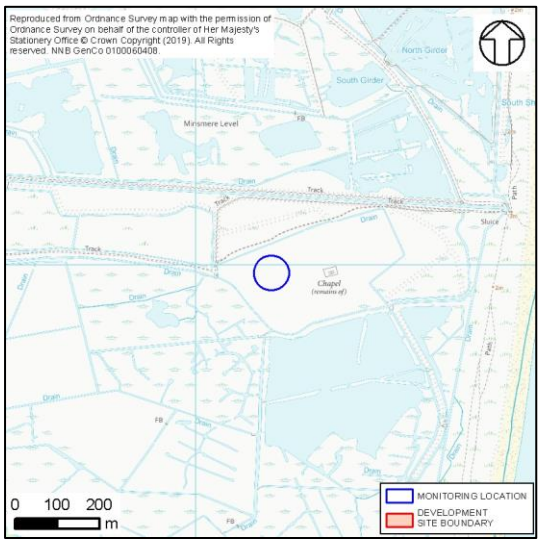
Site Description: Free-field location at end of access road on kerbside, five metres from minor road.

Dates: 5, 7, 8, 13 August 2014, 22 May, 9, 10 July 2019

Notes: The sound climate during attended part of survey was comprised of vehicles on local and distant roads, aircraft, birdsong from various species, shotguns, cows, general farm activity, barking dogs and tractors. Ambient sound levels were typically around 55dB during the daytime with occasional events up to a maximum of 89dB, mainly from vehicle pass-bys. Background sound levels were typically around 34dB during the day, and 28dB during the night.



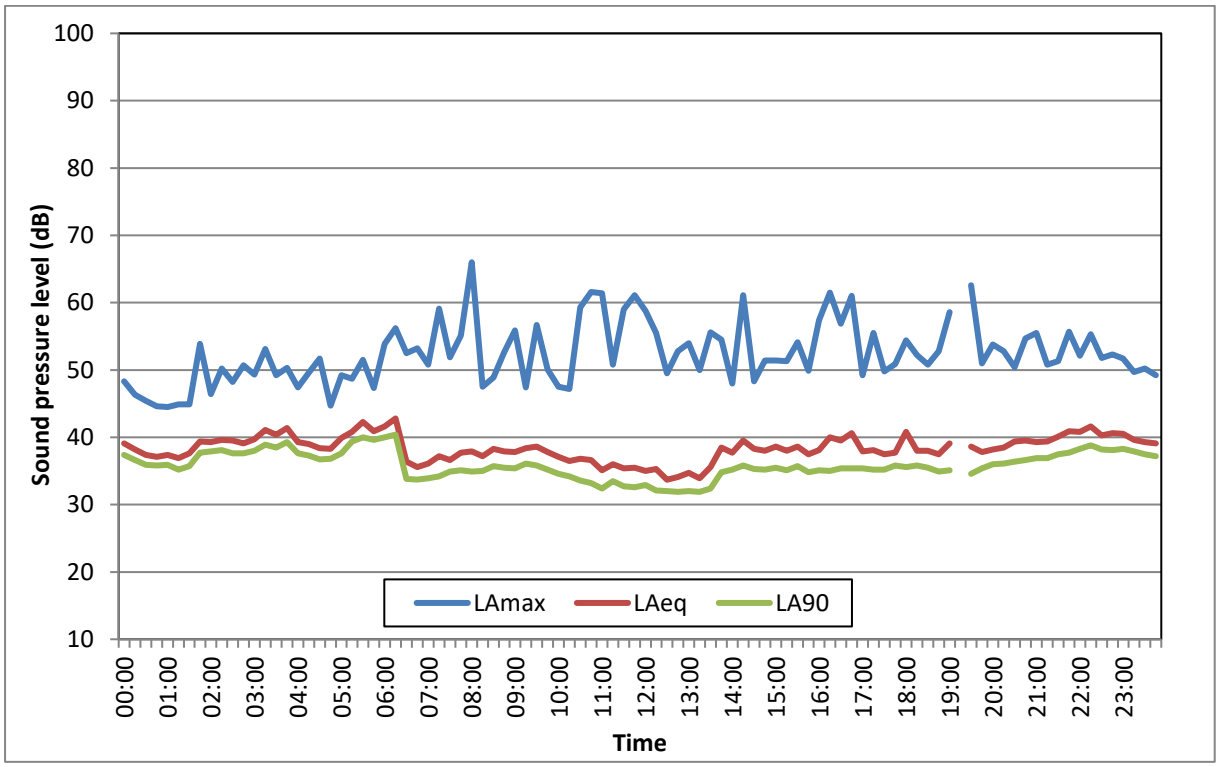
MS3 – Leiston Old Abbey



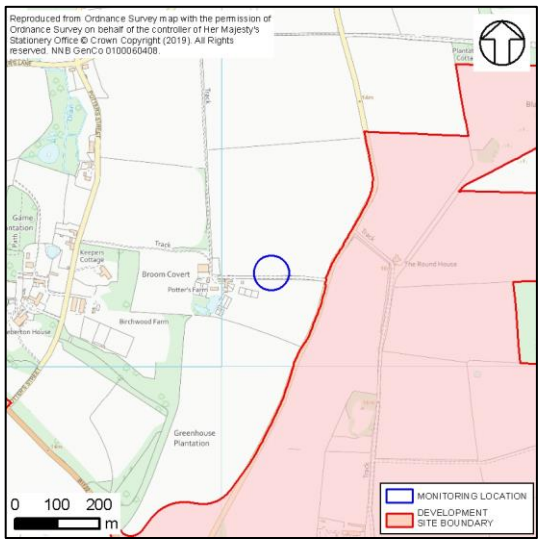
Site Description: Free-field, open site within gated area of Old Abbey, at significant distance from any road.

Dates: 3-4 September, 13 November 2014

Notes: The sound climate during the attended daytime survey was comprised of occasional people walking past on footpath, horses, cows, insects, birdsong from various species, distant shotguns and occasional overhead aircraft. At times a gentle breeze was noted through the reeds, and the sea on the shingle beach in the distance. Ambient sound levels were typically around 38dB during the day and 40dB at night. Background sound levels were typically around 35dB throughout the day and night.



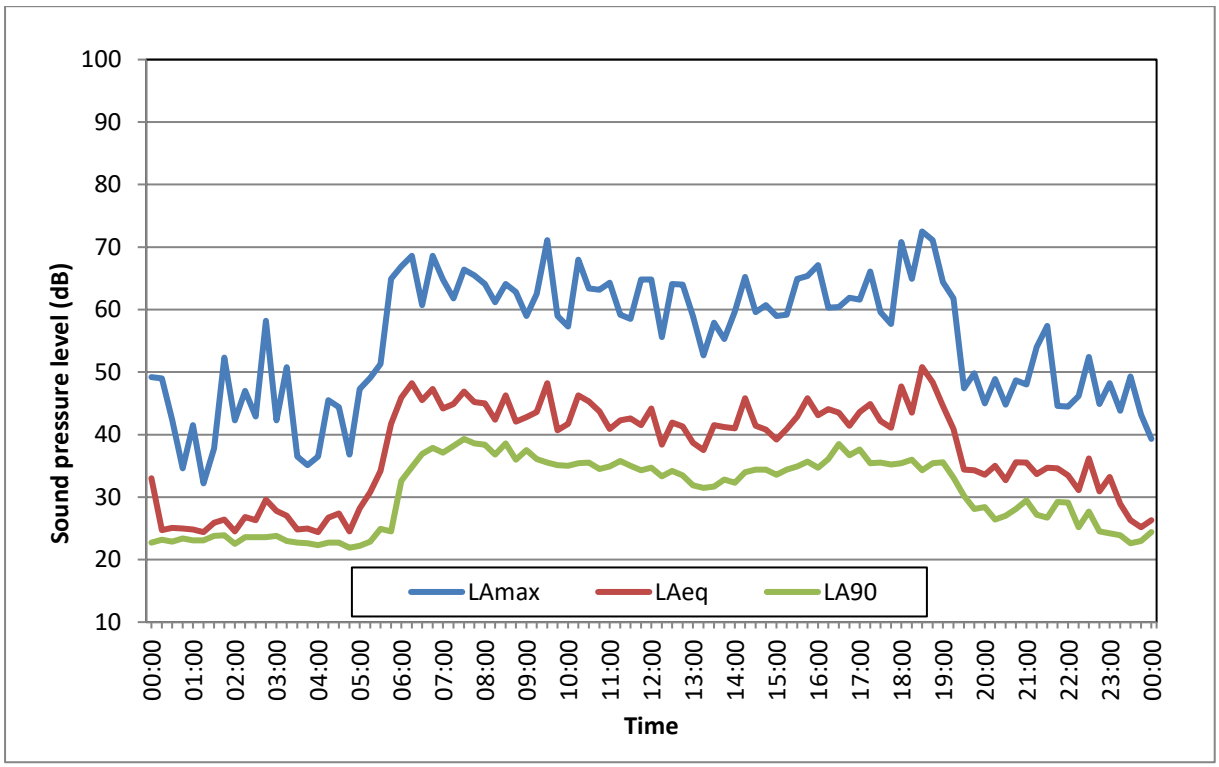
MS4 – Land east of Potters Farm



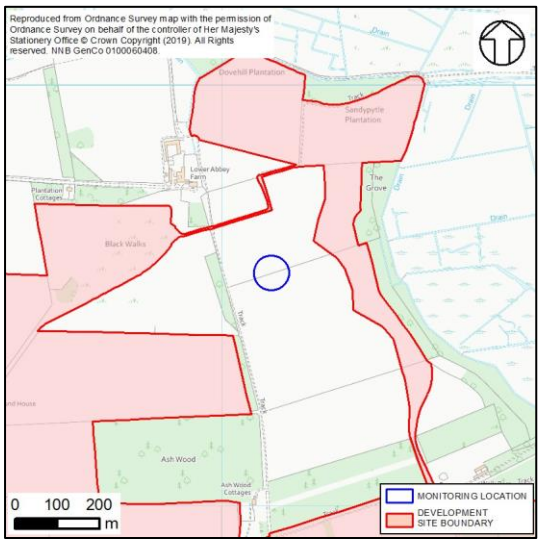
Site Description: Free-field location on field edge east of Potters Farm.

Dates: 12-14 & 19-23 September 2016

Notes: The sound climate was comprised of distant road traffic, aircraft, agricultural activity and birdsong from various species. A typical day of measurement data is presented. Ambient sound levels were typically around 43dB during the day and below 30dB at night. Background sound levels were typically around 37dB during the day and 25dB at night.



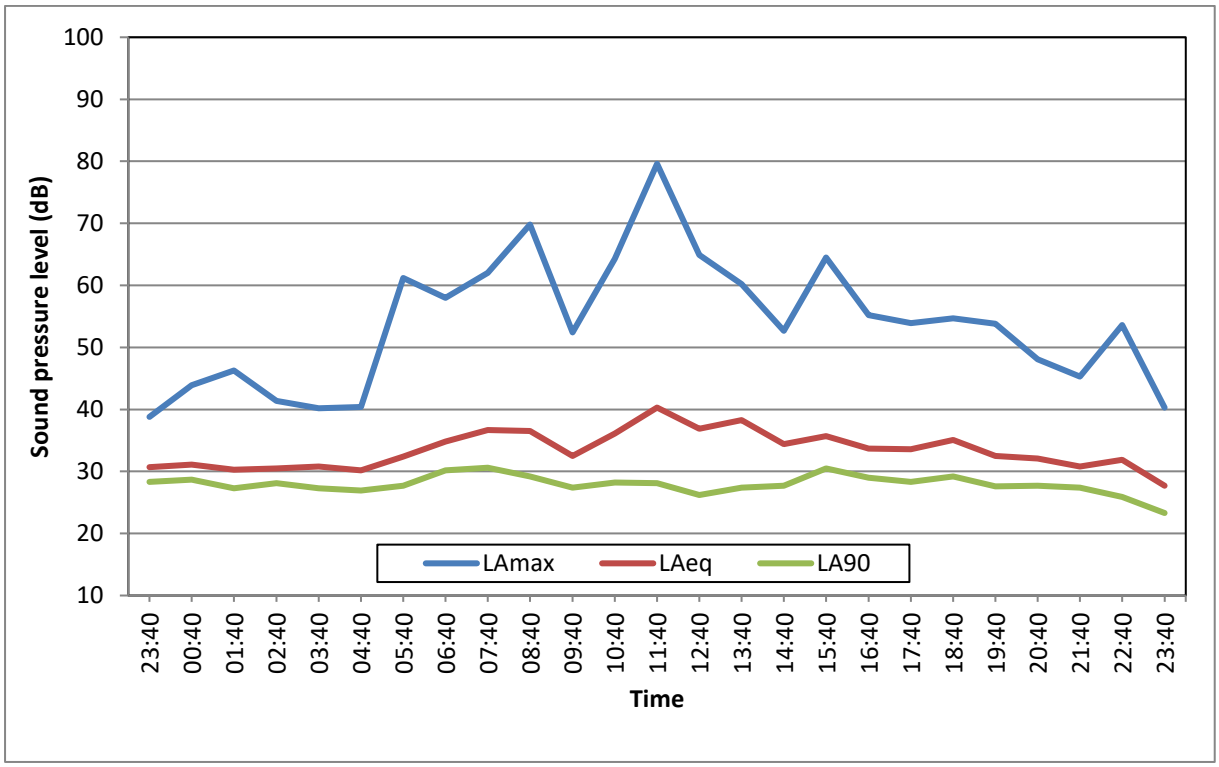
MS5 – Land south and west of Minsmere



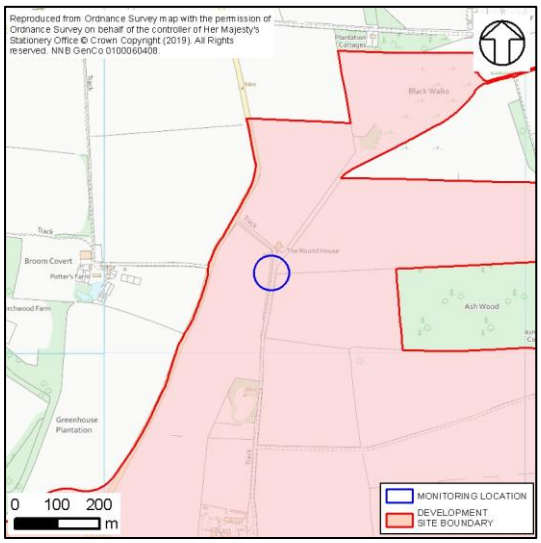
Site Description: Free-field location on field edge.

Dates: 12-23 September 2016

Notes: The sound climate was comprised agricultural activity and occasional aircraft with birdsong from various species. Various sounds were audible from the Sizewell B station including tannoy announcements and alarms. A typical day of measurement data is presented. Ambient sound levels were typically around 36dB during the day and 31dB at night. Background sound levels were typically around 29dB during the day and below 28dB at night.



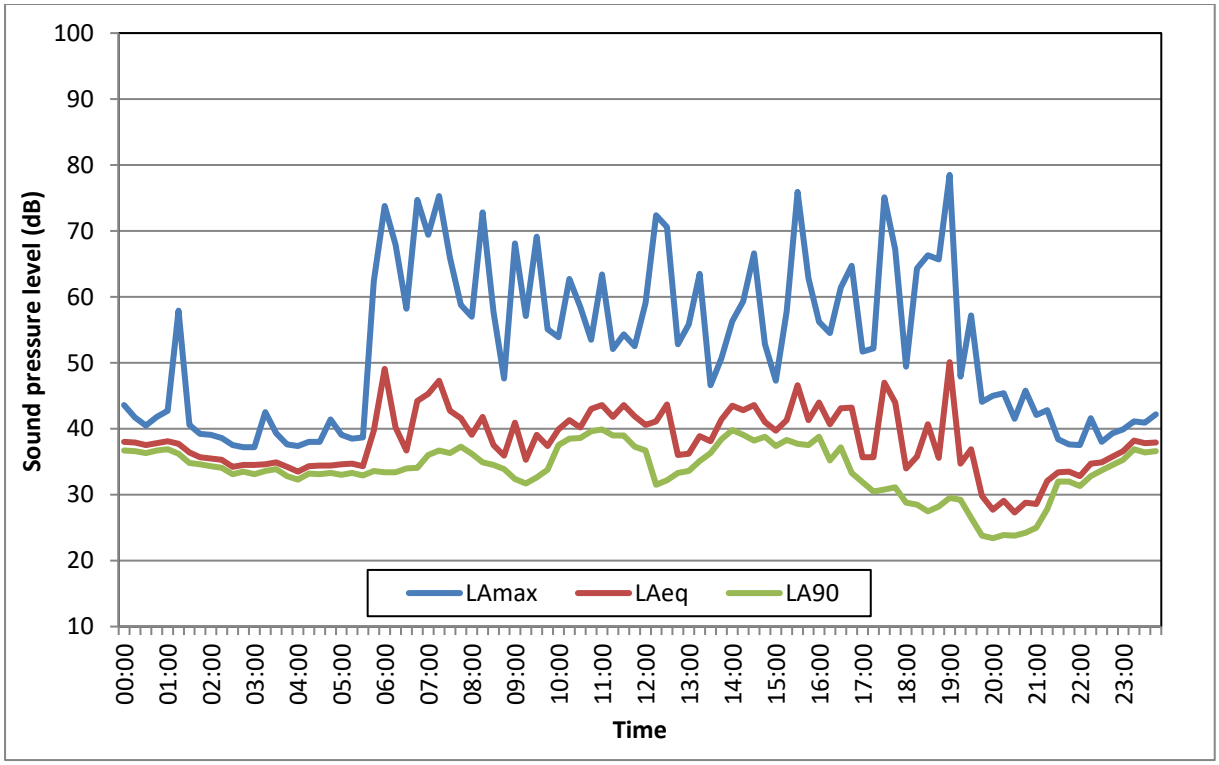
MS6 – The Round House



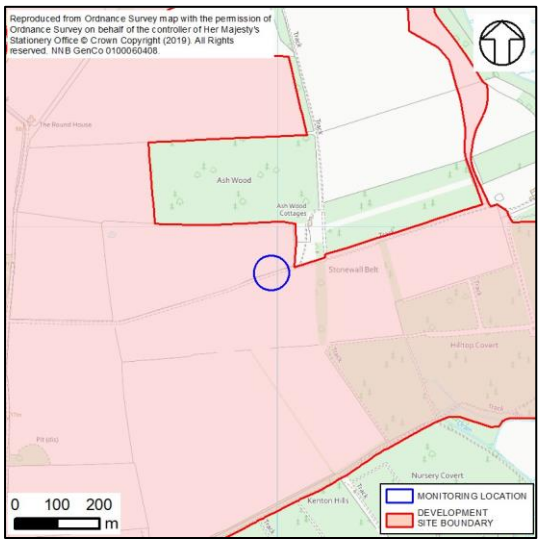
Site Description: Free-field location on edge of footpath down track, adjacent to fields at significant distance from any road.

Dates: 17-18 September 2014

Notes: The sound climate was comprised of birdsong from various species, buzzing insects, and distant road traffic. Occasional aircraft and distant traffic were also noted. L_{Amax} of 50-80dB were noted in the daytime from bird calls and a constant hum from insects. Ambient sound levels were typically around 41dB during the day and 39dB during the night. Background sound levels were typically 35dB during the day and night.



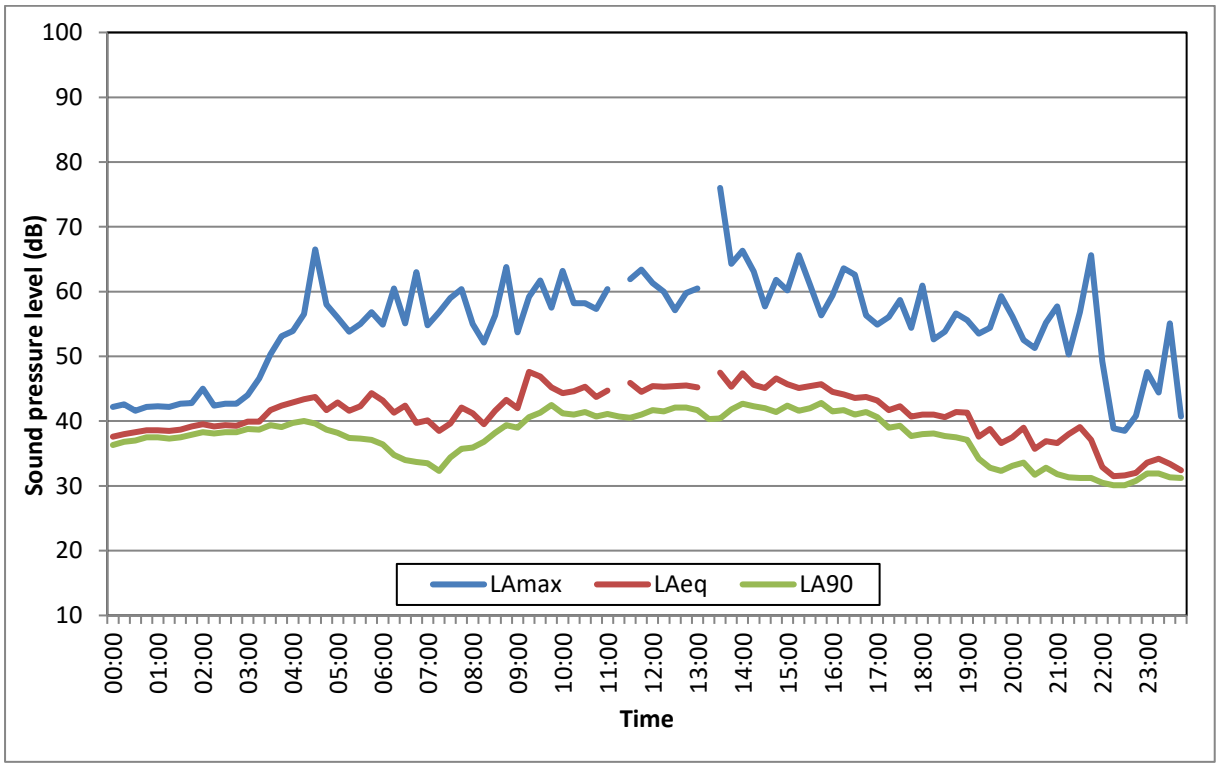
MS7 – Ash Wood Cottages



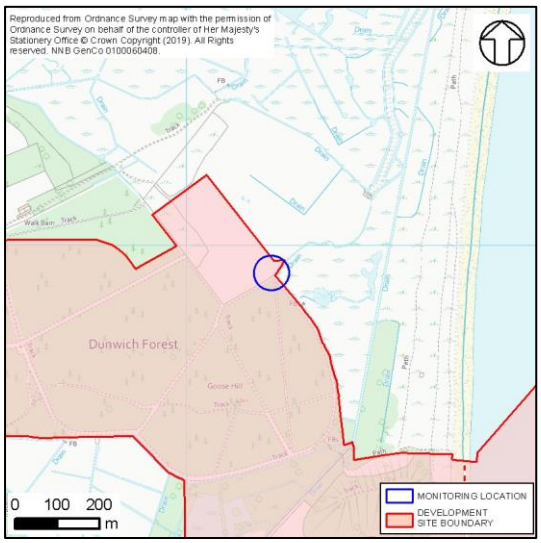
Site Description: Free-field location adjacent to fields down track at significant distance from any road. Approximately 60 metres from neighbouring property.

Dates: 17-18 September 2014

Notes: The sound climate was comprised of birdsong from various species, buzzing insects, occasional aircraft and barking dogs and a distant hum from Sizewell B station. L_{Amax} of 50-76dB were noted in the daytime coming from bird calls. Ambient sound levels were typically around 45dB during the day and 40dB during the night. Background sound levels were typically around 39dB during the day and 35dB during the night.



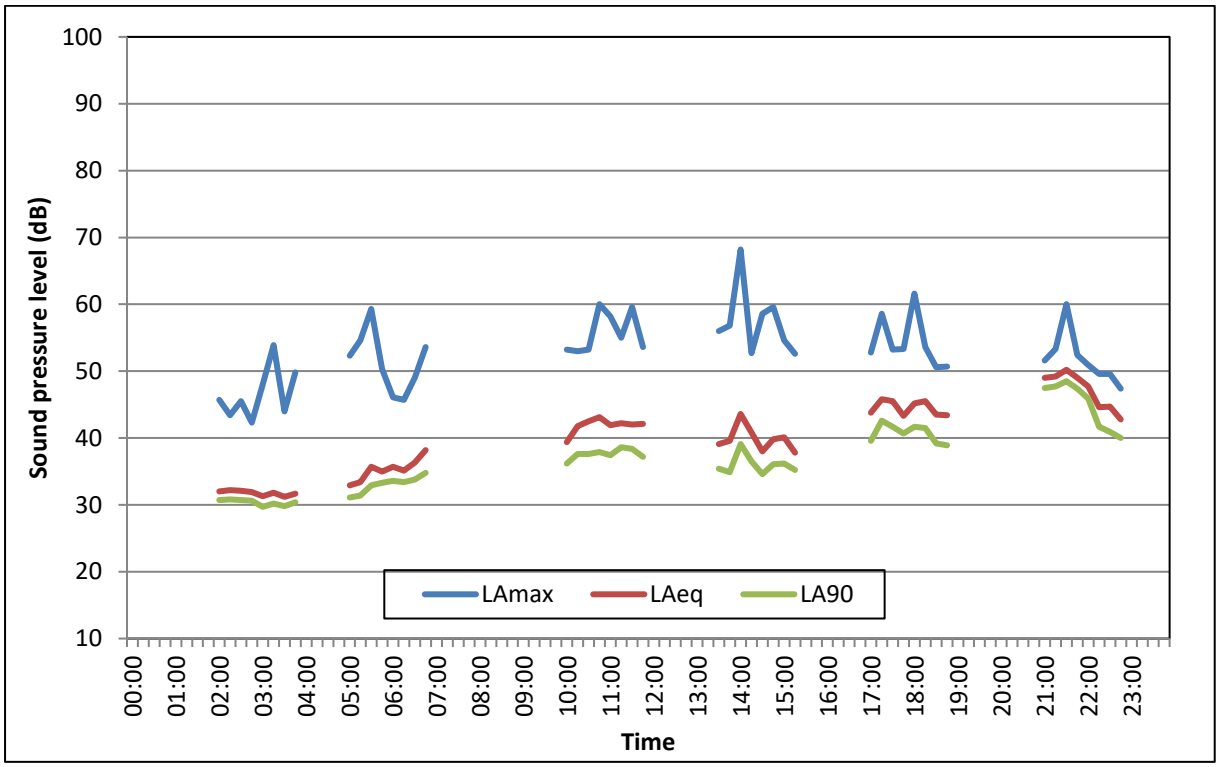
MS8 – Abbey Marshes



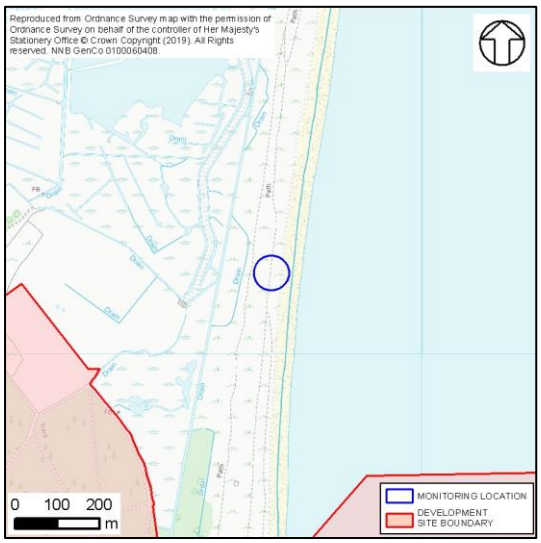
Site Description: Free-field location on edge of footpath, adjacent to fields and woodland at significant distance from any road.

Dates: 12, 28-29 August 2014

Notes: The sound climate was comprised of the sea, birdsong from various species, occasional aircraft, distant industrial noises including reversing alarms and a distant hum from Sizewell B station. An L_{Amax} of 68dB was noted to be from a helicopter. Ambient sound levels were typically around 45dB during the day and 35dB during the night. Background sound levels were typically 40dB during the day and 33dB during the night. These levels varied depending on sea state conditions.



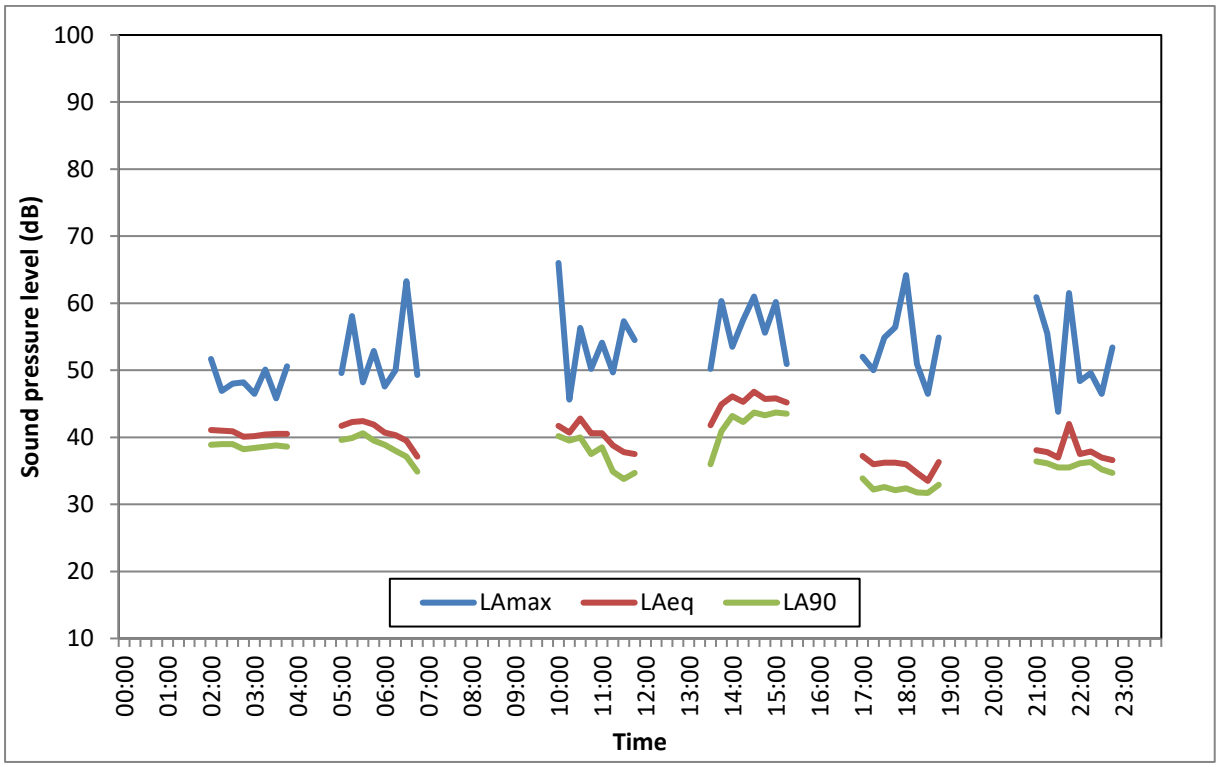
MS9 – Coast Path North



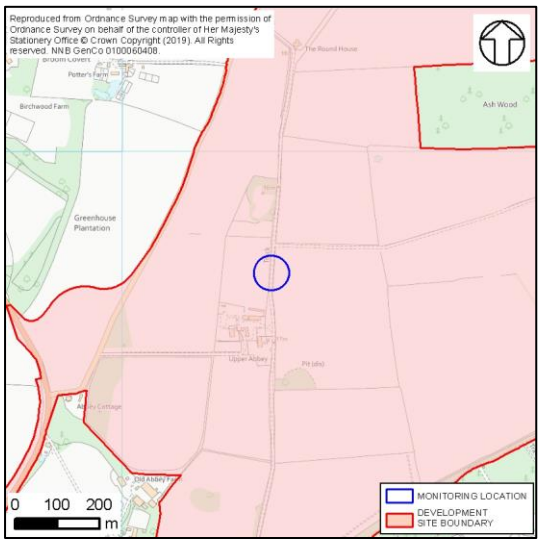
Site Description: Free-field location on edge of footpath at edge of beach, adjacent to fields and at significant distance from any road.

Dates: 13, 14, 15, 21 August 2014

Notes: The sound climate was comprised of the sea, birdsong from various species, occasional aircraft, walkers talking and general site activity at Sizewell B station. An L_{Amax} of 63dB was noted to be from an aircraft. Ambient sound levels were typically around 43dB during the day and 41dB at night. Background levels were typically around 40dB during the day. Background sound levels at night ranged from 35-40dB depending on sea conditions.



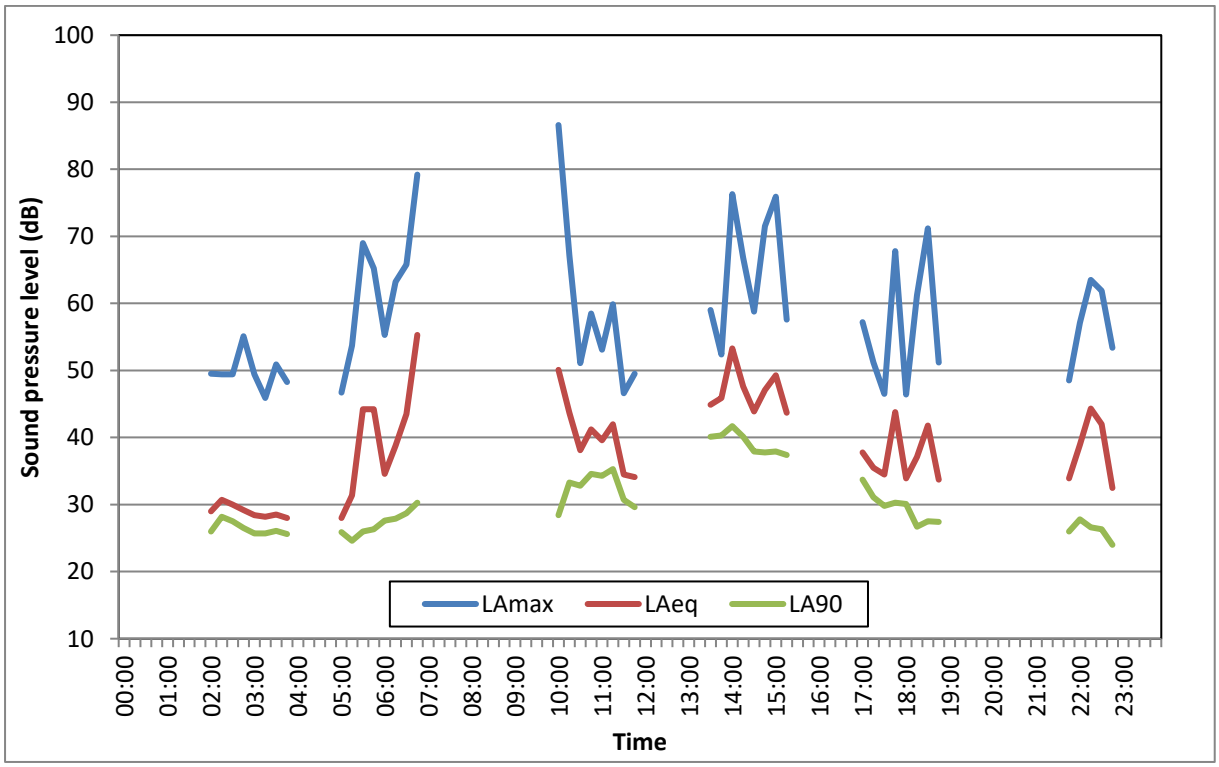
MS10 – Bridleway Centre



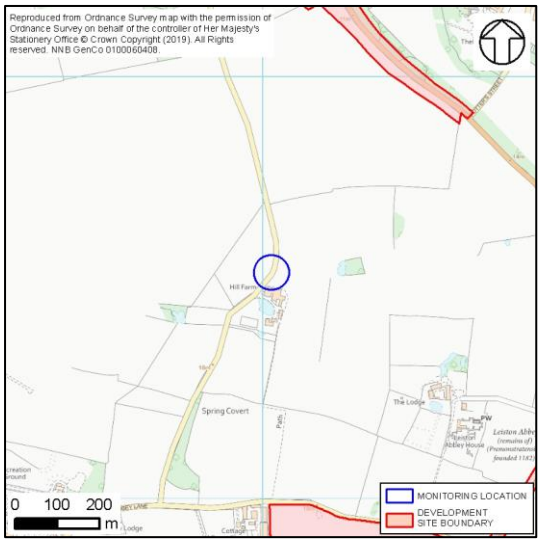
Site Description: Free-field location on edge of bridleway, adjacent to fields and at significant distance from any road.

Dates: 27 August, 1, 2, 3, 29 September 2014

Notes: The sound climate was comprised of birdsong from various species, distant road traffic, occasional aircraft, and vehicles on the bridleway. L_{Amax} up to 87dB were noted from car and tractor pass-bys on the bridleway. Ambient sound levels were typically around 45dB during the day and between 30-40dB at night. Background sound levels were typically around 35dB during the day and 28dB during the night.



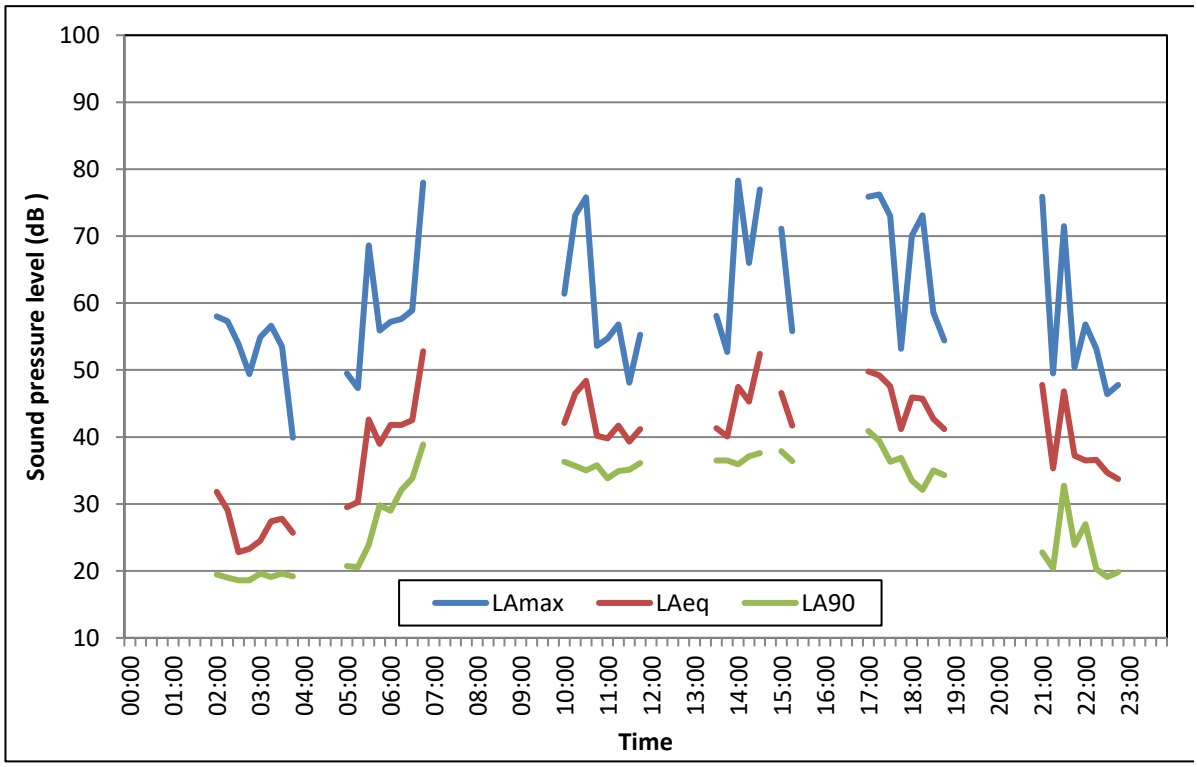
MS11 – Hill Farm



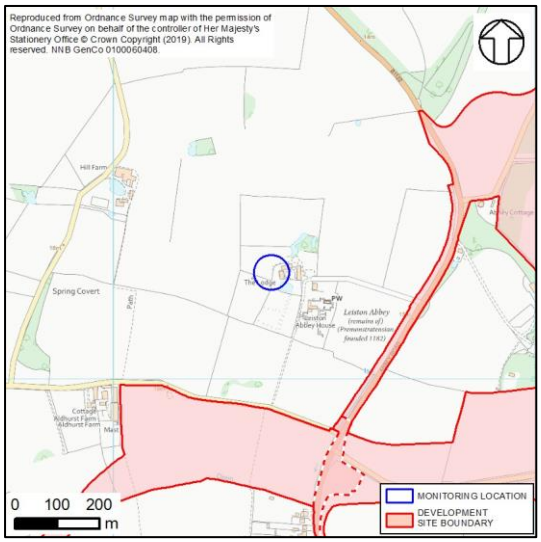
Site Description: Free-field location by farm entrance, three metres from minor road.

Dates: 2, 4, 9 September 2014

Notes: The sound climate was comprised of vehicles on local and distant roads, birdsong from various species, occasional aircraft, barking dogs and local farm activity. Ambient sound levels were typically around 45dB during the daytime with regular L_{Amax} events up to 78dB were noted, mainly from passing traffic. Background sound levels were typically around 37dB during the day and 25dB during the night.



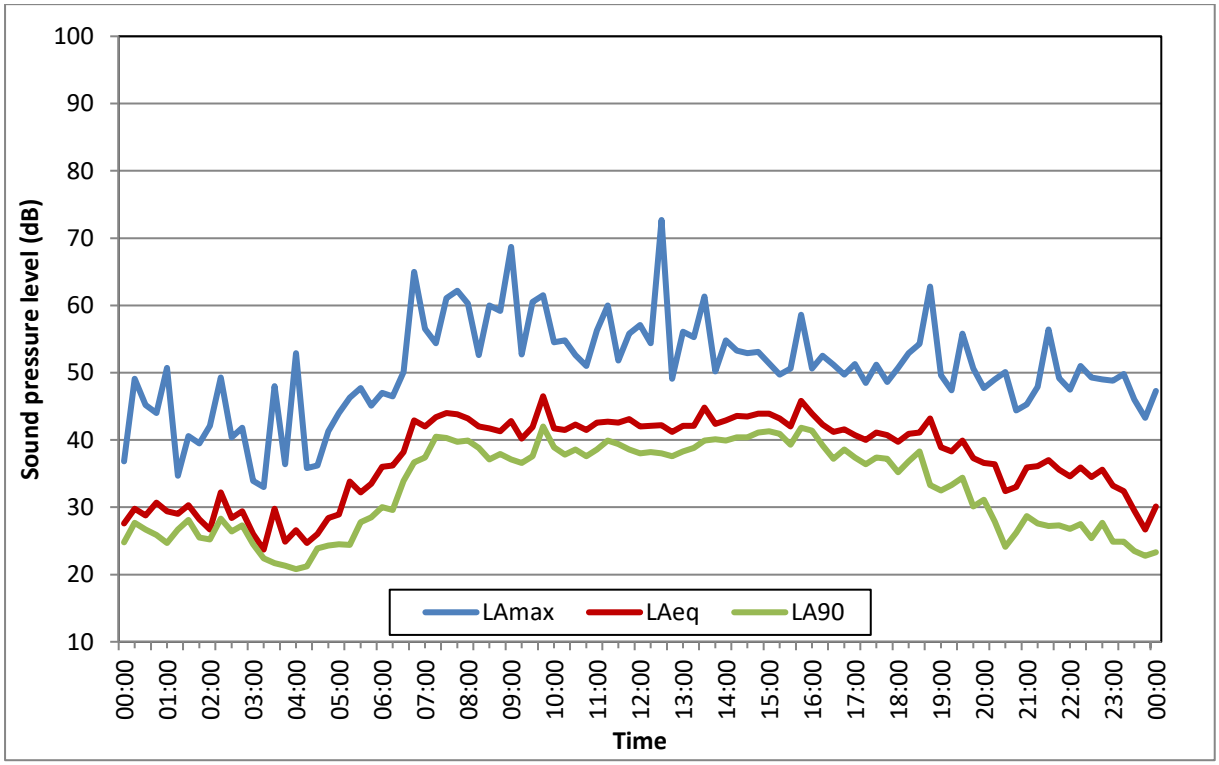
MS12 – Leiston Abbey, rear



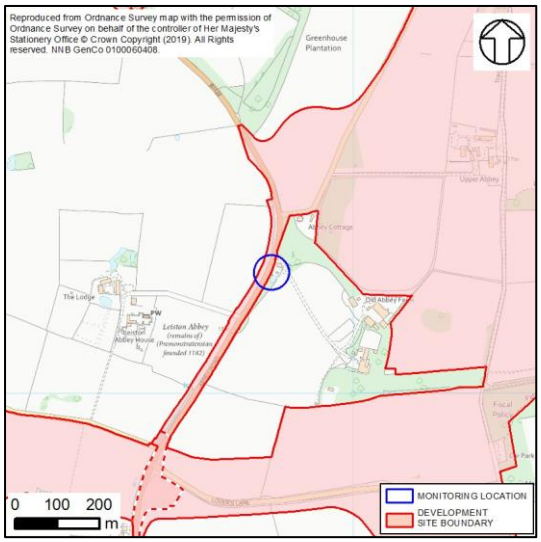
Site Description: Free-field location within grassed area to rear of property. At significant distance from any public road.

Dates: 23-30 November 2015

Notes: Unattended survey over seven days. Background, ambient and maximum sound levels are presented for a typical day. The sound climate was comprised of distant road traffic noise, occasional aircraft, occasional agricultural activity and birdsong from various species. Ambient sound levels were typically around 42dB during the day and 30dB at night. Background sound levels were typically around 38dB during the day and 27dB at night.



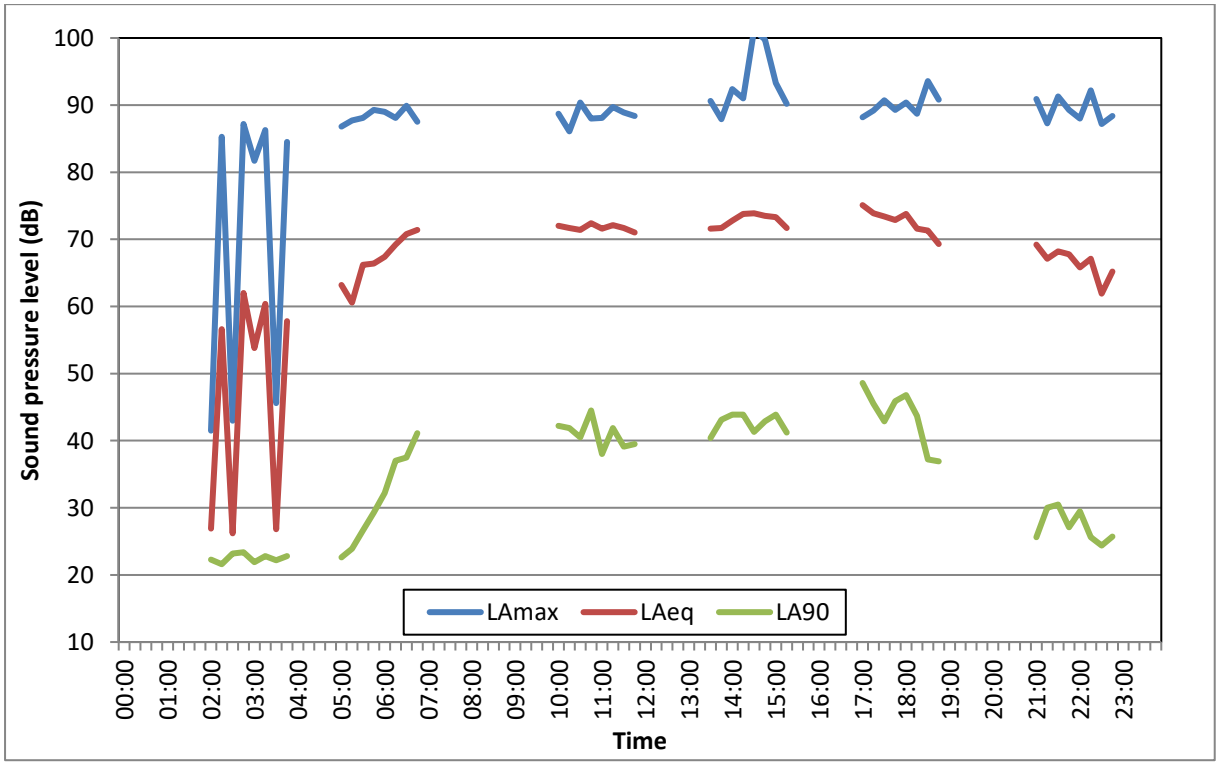
MS13 – Old Abbey Farm Lodge



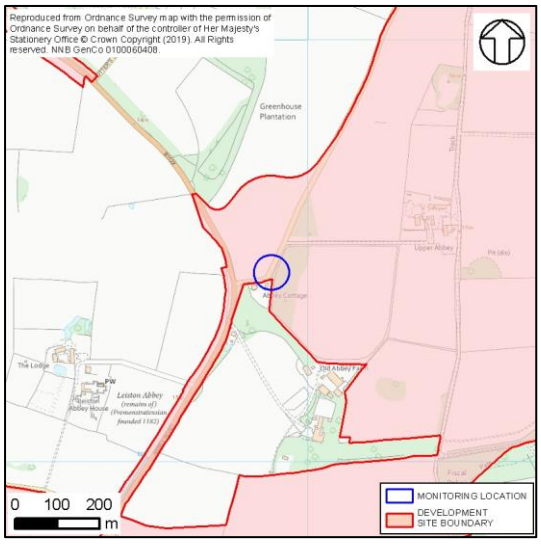
Site Description: Free-field location on edge of path, 1.3 metres from kerb of road (B1122).

Dates: 3, 5, 10 September 2014

Notes: The sound climate was comprised of road traffic including regular heavy goods vehicles (HGVs), occasional aircraft, tractors, motorbikes and birdsong from various species notable in the absence of road traffic noise. Ambient sound levels were typically around 71dB during the day. Background sound levels were typically around 42dB during the day. Background levels at night were below 30dB. The events in the period of 02:00 to 03:00 were from passing road vehicles.



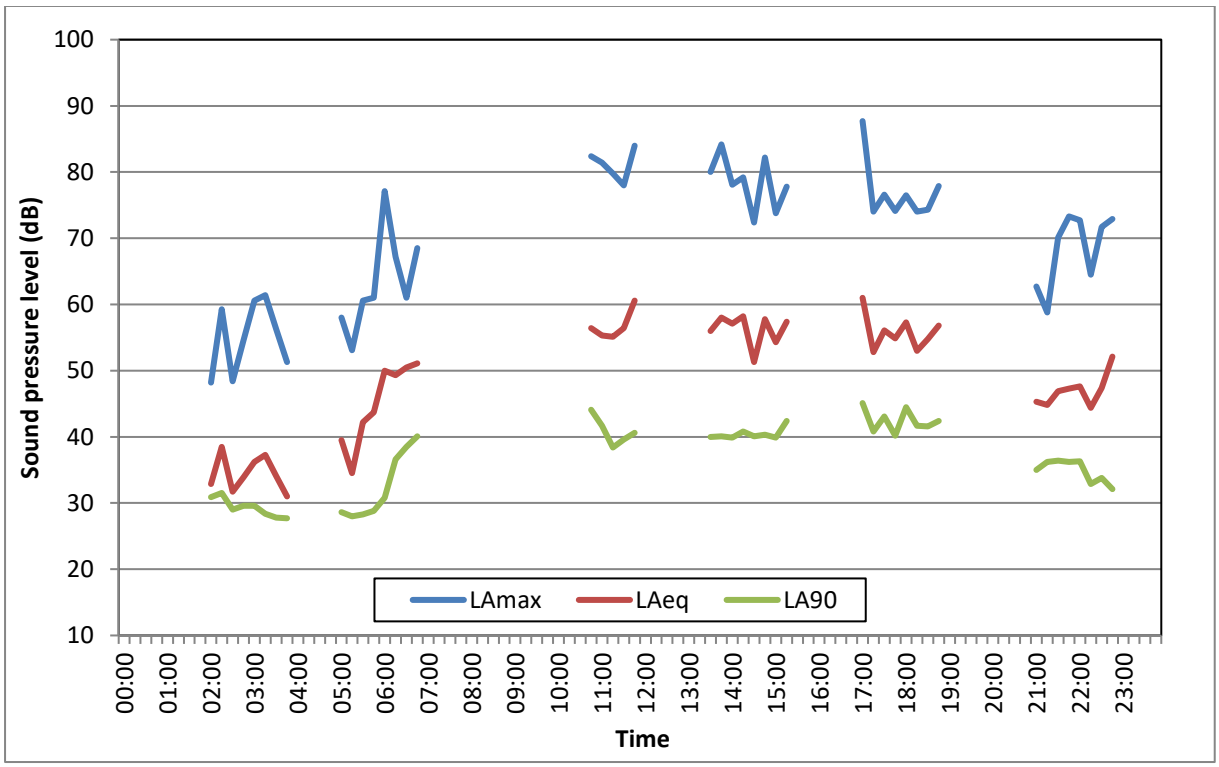
MS14 – Abbey Cottage



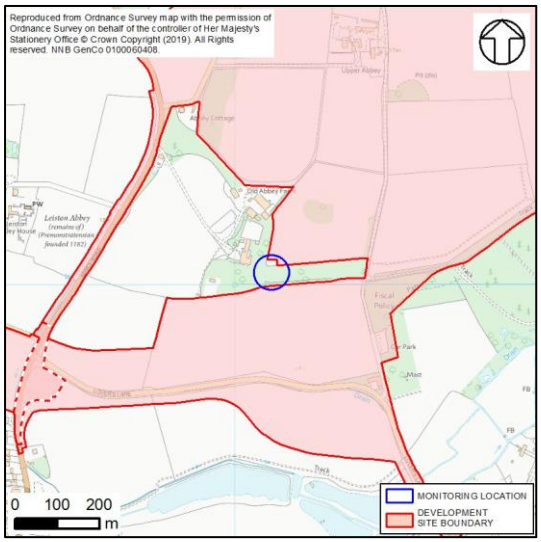
Site Description: Free-field location, 0.5 metres from kerb of minor road, ten metres from entrance to cottage. Approximately 70 metres to the B1122 junction.

Dates: 15, 17 September, & 9, 10, 23 October 2014

Notes: The sound climate was comprised of road traffic on the local road and nearby B1122 including motorbikes and tractors. Occasional aircraft and pheasant calls were noticeable in the absence of traffic noise. Ambient sound levels were typically around 56dB during the day and 40-45dB during the night. Background sound levels were typically around 41dB during the day and 30dB during the night. L_{Amax} events of 80dB or above were from passing traffic.



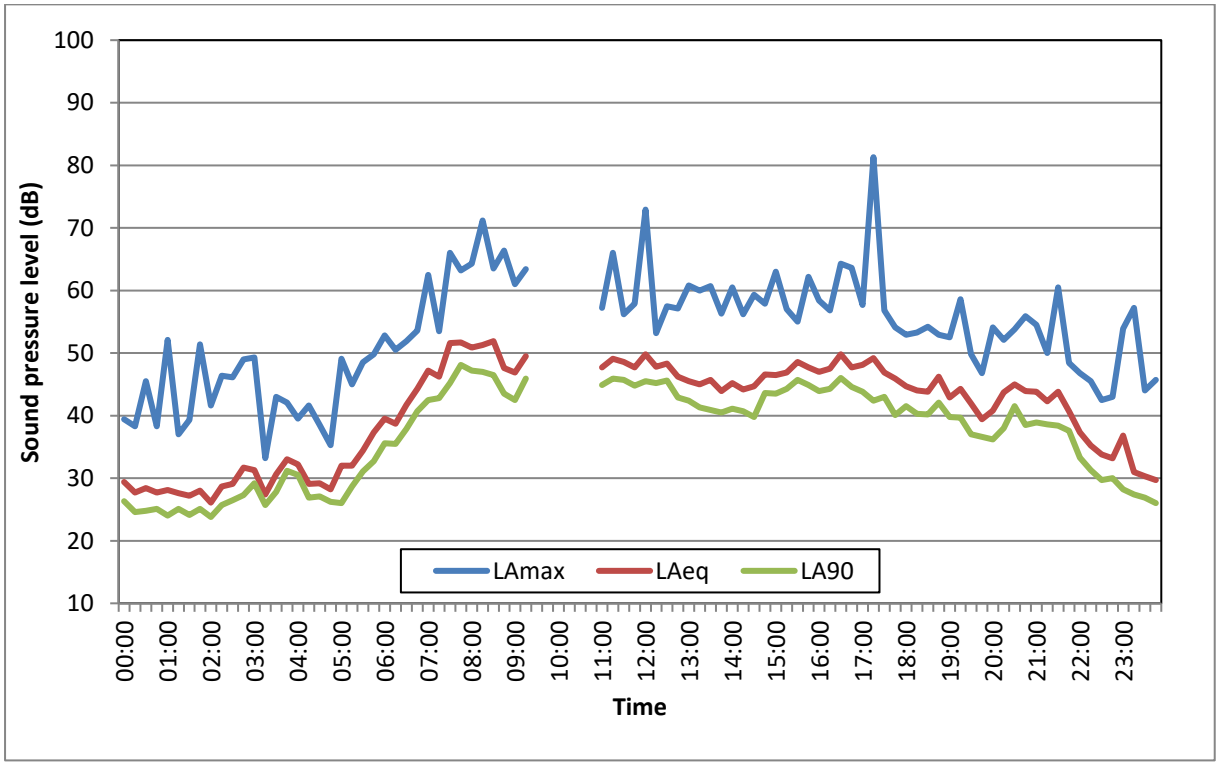
MS15 – Old Abbey Care Home



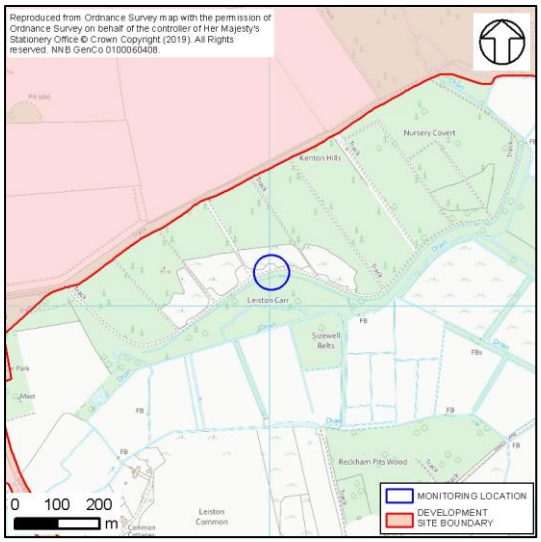
Site Description: Free-field location within wooded area off public footpath behind care home, at significant distance from any road.

Dates: 25-26 January 2016

Notes: The sound climate was comprised of distant road traffic and construction noise. Other noted sounds were birdsong, aircraft and local farming traffic. L_{Amax} events of 50-80dB were noted in the daytime. Ambient sound levels were around 47dB during the daytime and 34dB at night. Background sound levels were typically 43dB during the day and 30dB and below at night.



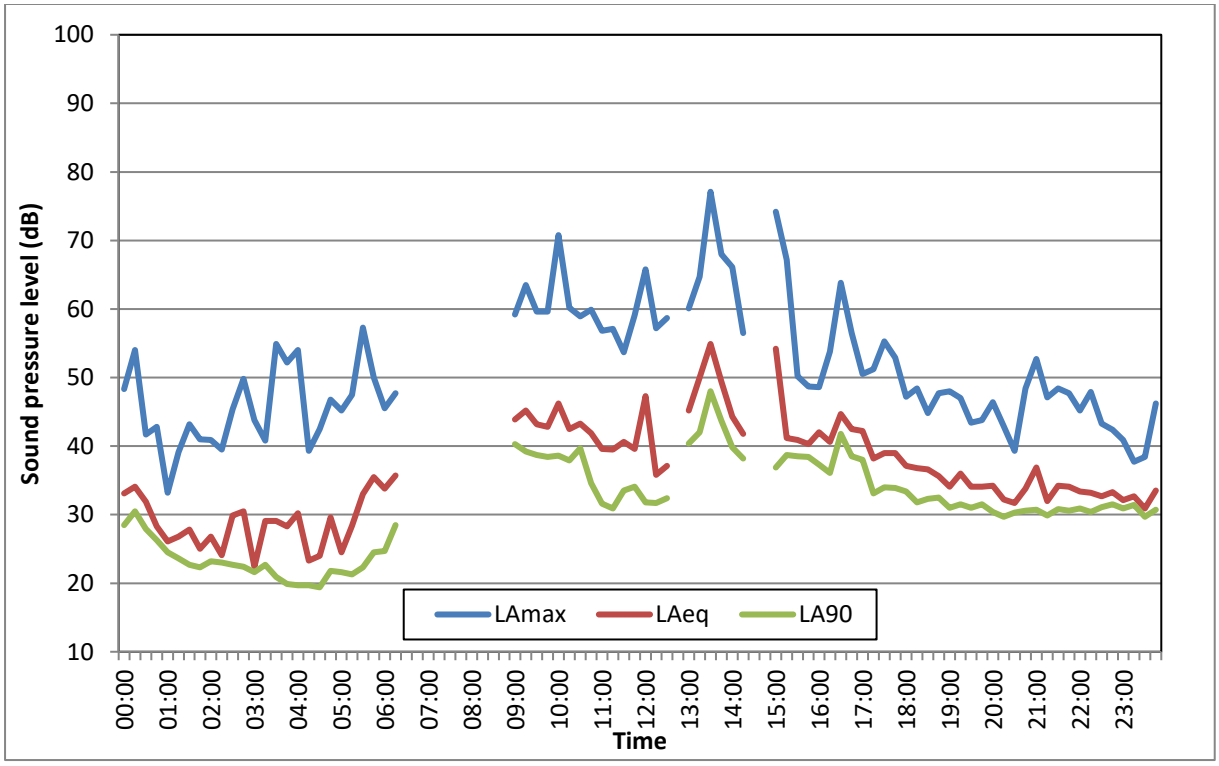
MS16 – Sizewell Marshes West



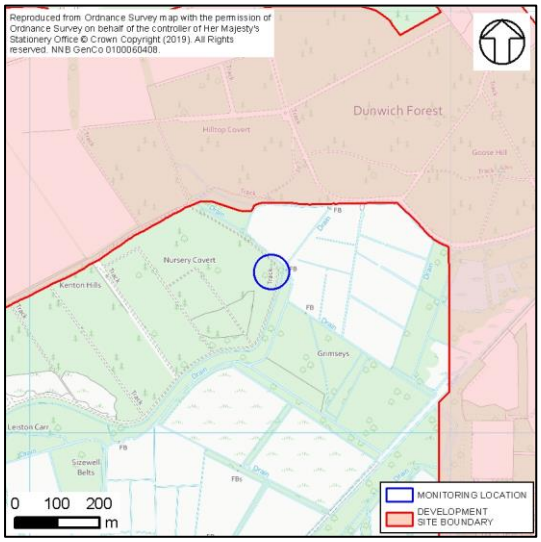
Site Description: Free-field location on edge of open area within woodland, five metres from path at significant distance from any road.

Dates: 8, 6, 18-19 January 2016

Notes: The sound climate was comprised of birdsong from various species, occasional aircraft, walkers, barking dogs, shotgun noises and a distant hum from the Sizewell B station. L_{Amax} on occasion measured up to 77dB from a metallic banging. Ambient sound levels were typically around 45dB during the day and 34dB at night. Background sound levels were typically around 36dB during the day and 27dB at night.



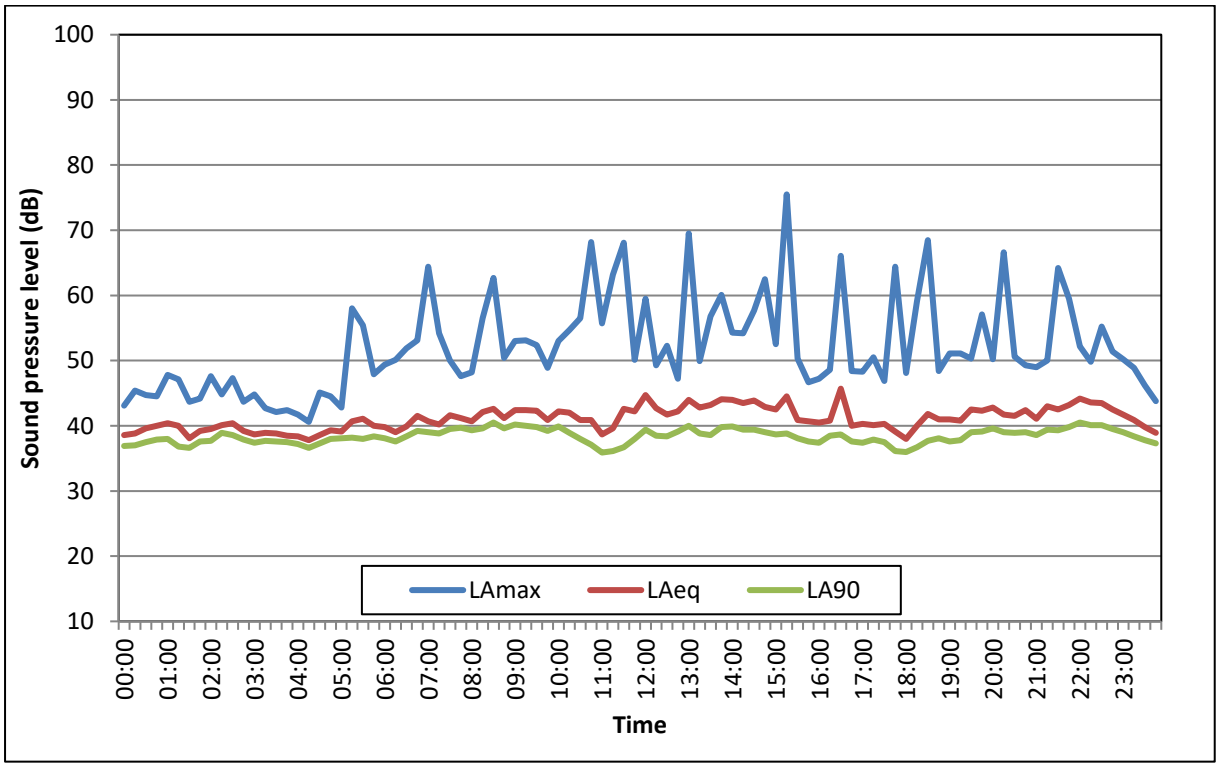
MS17 – Sizewell Marshes East



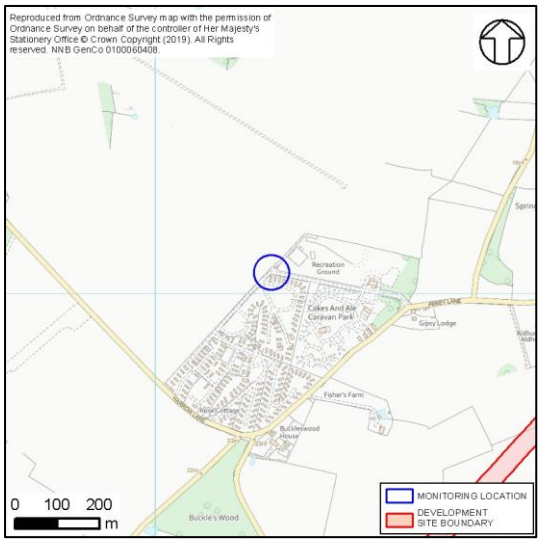
Site Description: Free-field location close to open area at edge of woodland, three metres from path at significant distance from any road.

Dates: 27-28 August 2014

Notes: The sound climate was comprised of birdsong from various species, insects, occasional aircraft, walkers, barking dogs, distant construction activity and a distant hum from Sizewell B station. L_{Amax} of 50-65dB were noted in the daytime from birdsong and construction noises. Ambient sound levels were typically around 40dB throughout the day and night. Background sound levels were typically around 39dB throughout the day and night.



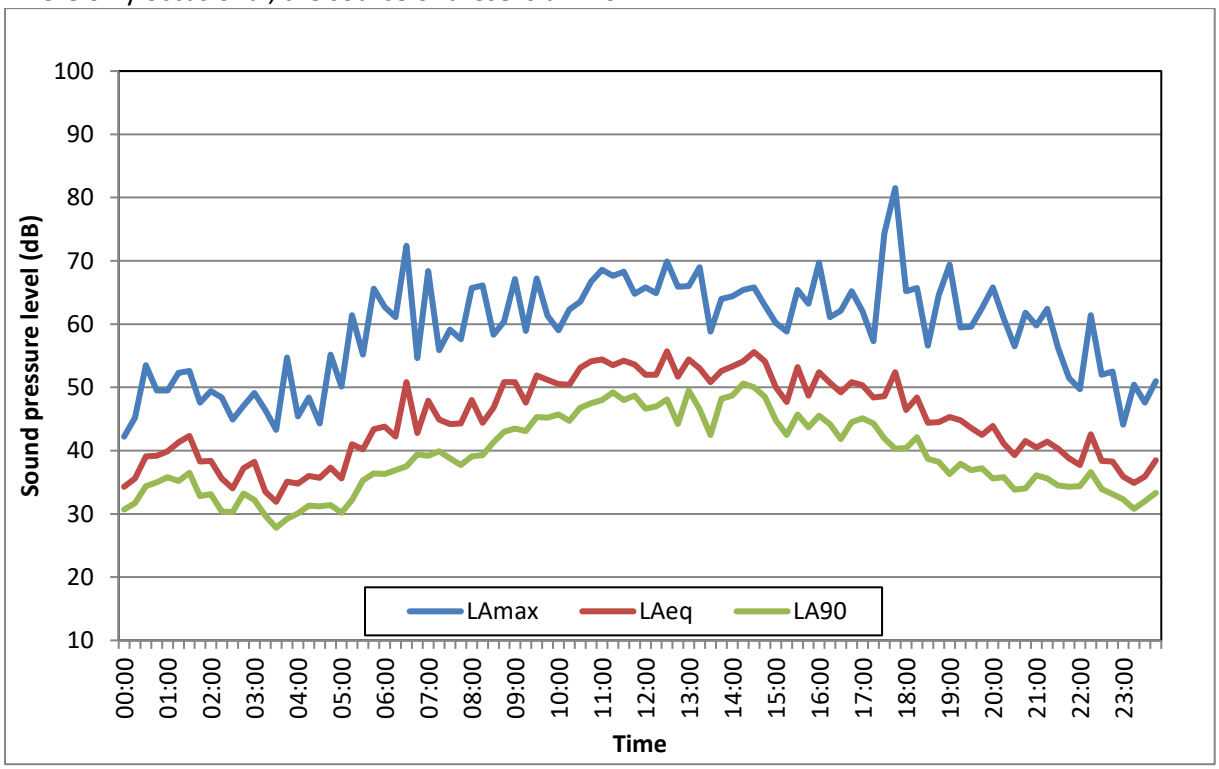
MS18 – Cakes and Ale Caravan Site



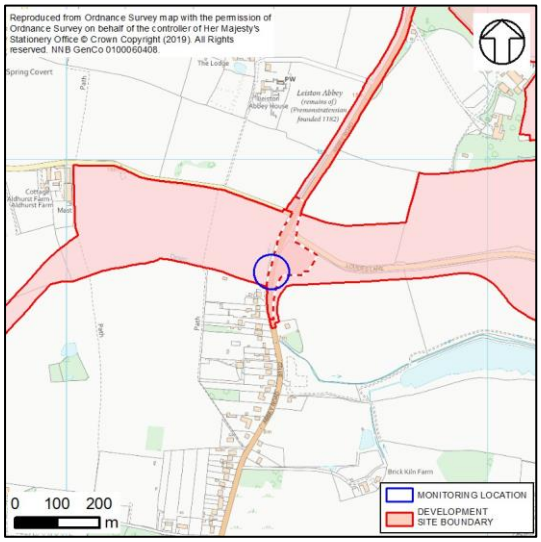
Site Description: Free-field location mounted on pole three metres above ground at rear of cabin on campsite.

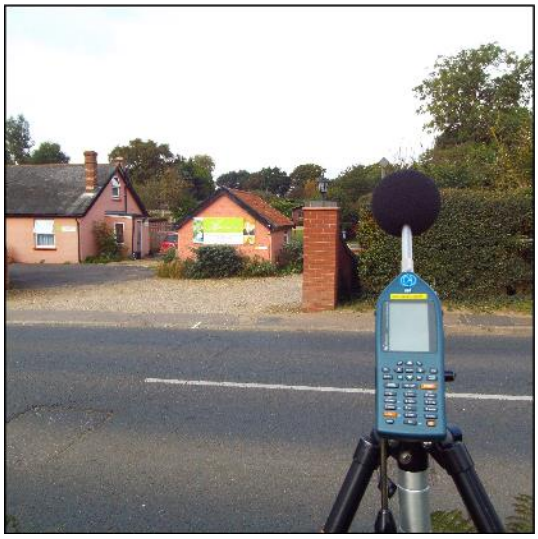
Dates: 7-14 August 2014

Notes: Unattended survey over seven days. Background, ambient and maximum sound levels are presented for a typical day. The sound climate was comprised of road traffic, birdsong from various species, and activity associated with a camping and caravan site. Ambient sound levels were typically around 50dB during the day and 40dB during the night. Background sound levels were typically around 42dB during the day and 33dB during the night. L_{Amax} events over 70dB at this site were only occasional, the source of these is unknown.



MS19 – Leiston North

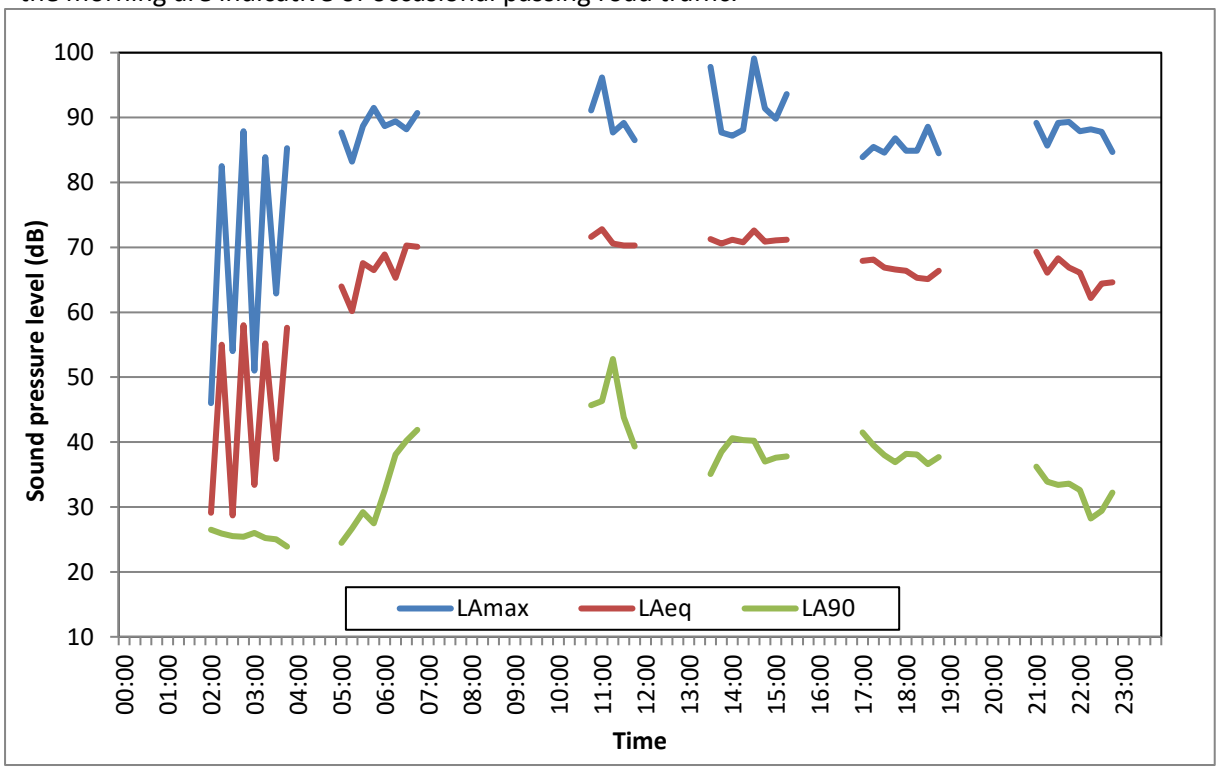




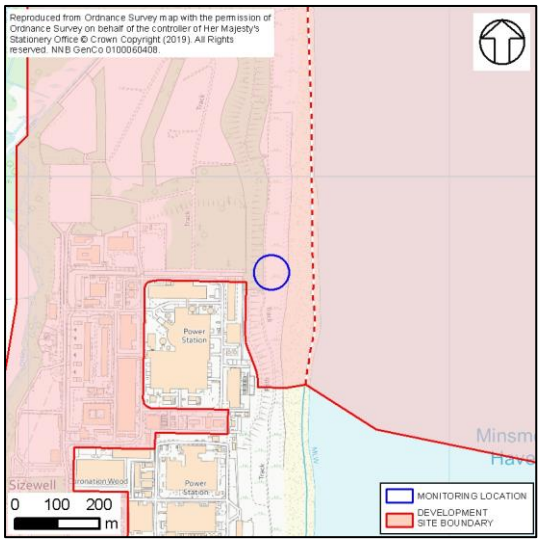
Site Description: Free-field location one metre from the edge of the B1122 Abbey Road, opposite the end of Abbey View Lodges.

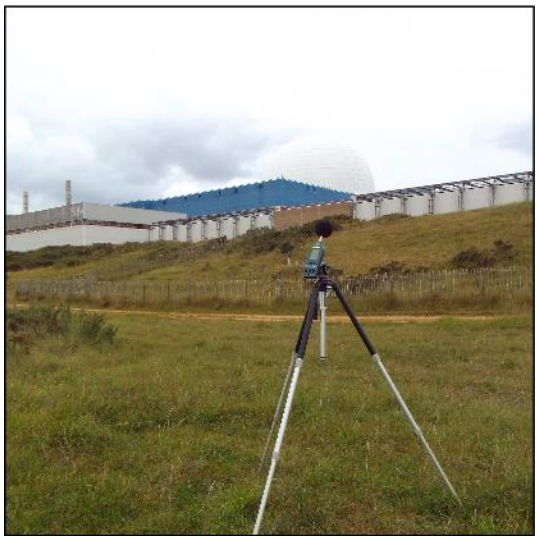
Dates: 1-3, 27 October 2014, 22 May, 3-4 July 2019

Notes: The sound climate was comprised of road traffic including heavy goods vehicles and tractors, birdsong from various species, regular overhead aircraft. Ambient sound levels were typically around 70dB during the day and 60dB at night. Background sound levels were typically around 40dB during the day and 30dB or below at night. The L_{Amax} events during the early hours of the morning are indicative of occasional passing road traffic.



MS20 – Coastal Path at site

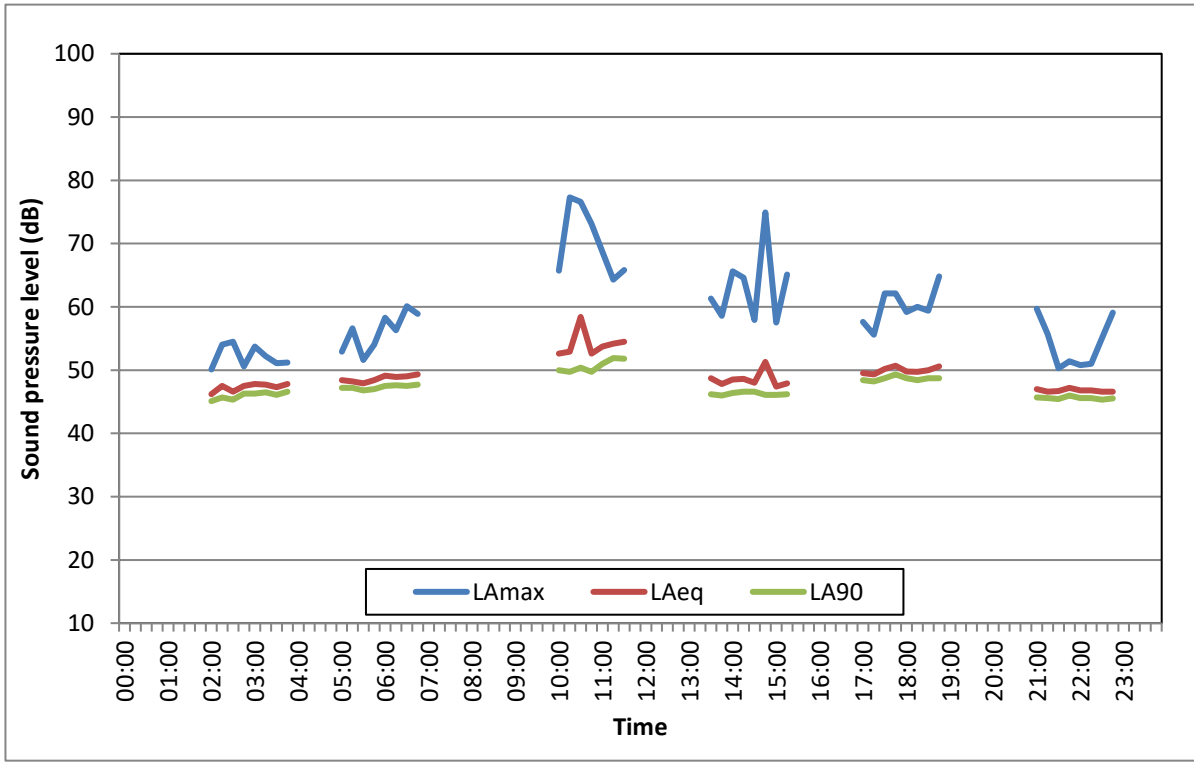




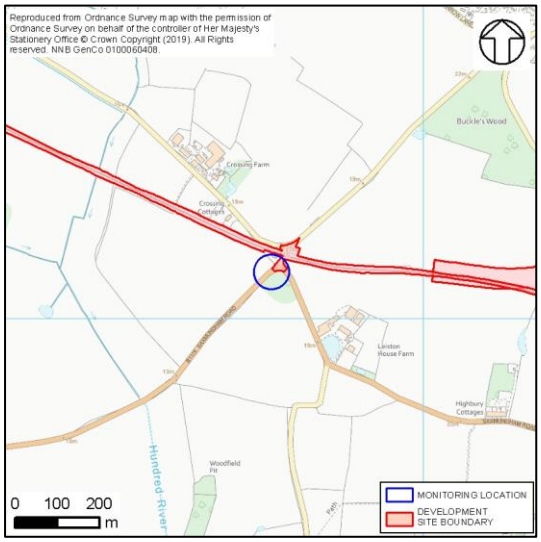
Site Description: Free-field location off the Coastal Path opposite the end of the Sizewell B complex.

Dates: 6, 8, 27 October 2014

Notes: The sound climate was comprised of sounds associated with the sea, general site activity at Sizewell B station, including steady state and transient noise such as localised alarms and tannoy announcements, people walking by on the coastal path, barking dogs, bird song from various species and occasional aircraft. Ambient sound levels were typically around 50dB during the day and 48dB at night. Background sound levels were typically around 48dB. There was very little variation in sound levels between day and night, likely to be because of the presence of the sounds of the sea on the shingle beach, which will as a result dictate levels varying throughout the year.



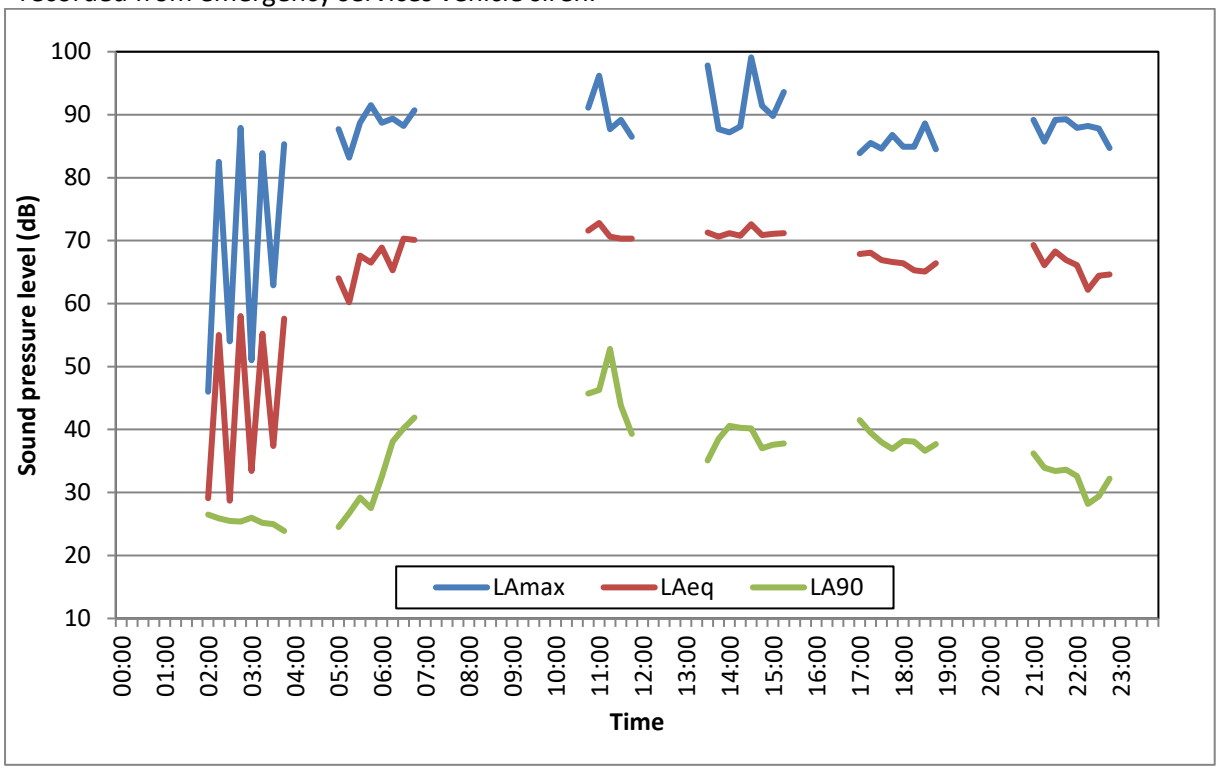
MS21 – The Gatehouse, Saxmundham Road



Site Description: Free-field location on grass verge four metres from edge of Crossing Lane, and seven metres from edge of Saxmundham Road.

Date: 26, 27, 28 August 2014

Notes: The sound climate was comprised of distant and local road traffic, including tractors, occasional aircraft, birdsong from various species and fox calling. Ambient sound levels were typically around 70dB during the day and 50dB during the night. Background sound levels were typically around 40dB during the day and below 30dB during the night. A noise level of 100dB was recorded from emergency services vehicle siren.

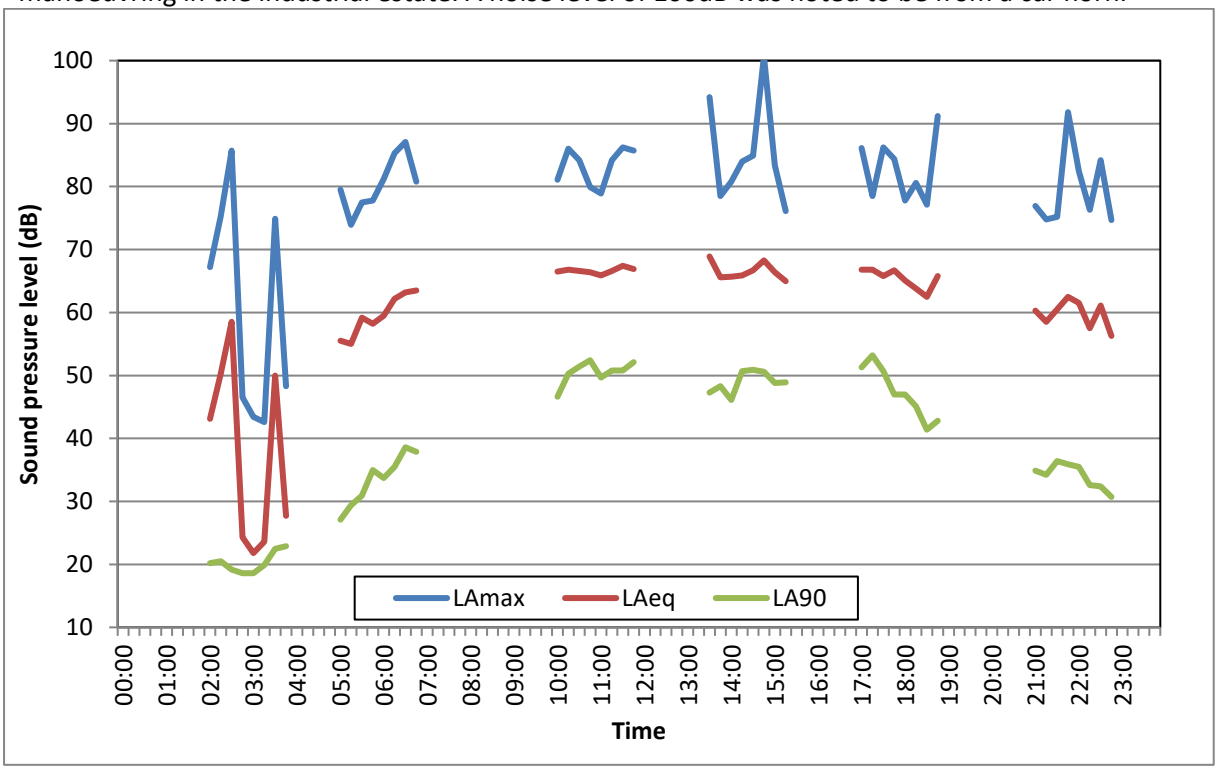


MS22 – Leiston Station

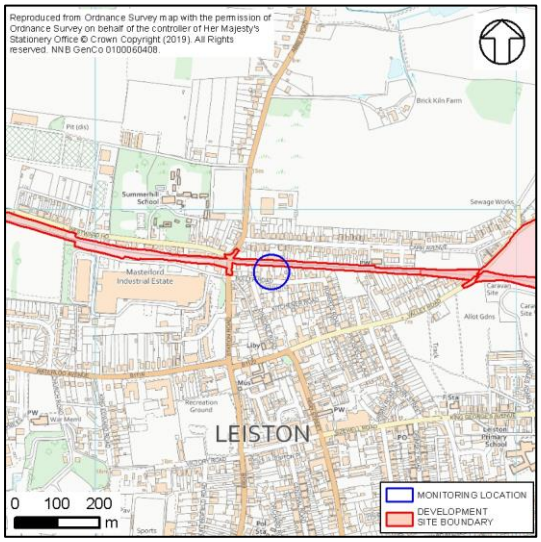
Site Description: Free-field location on grass verge two metres from the edge of Abbey Road and in sight of railway crossing.

Date: 18, 19, 21, 27 August 2014

Notes: The daytime sound climate comprised road traffic noise, including heavy goods vehicles, cars and tractors, general activity from the nearby industrial estate, people walking by on pavement, and occasional aircraft. Ambient sound levels were typically 65dB and below during the day. Background sound levels were typically around 45dB during the day and 30dB during the night. The L_{Amax} events during the early hours of the morning were noted to be from vehicles manoeuvring in the industrial estate. A noise level of 100dB was noted to be from a car horn.



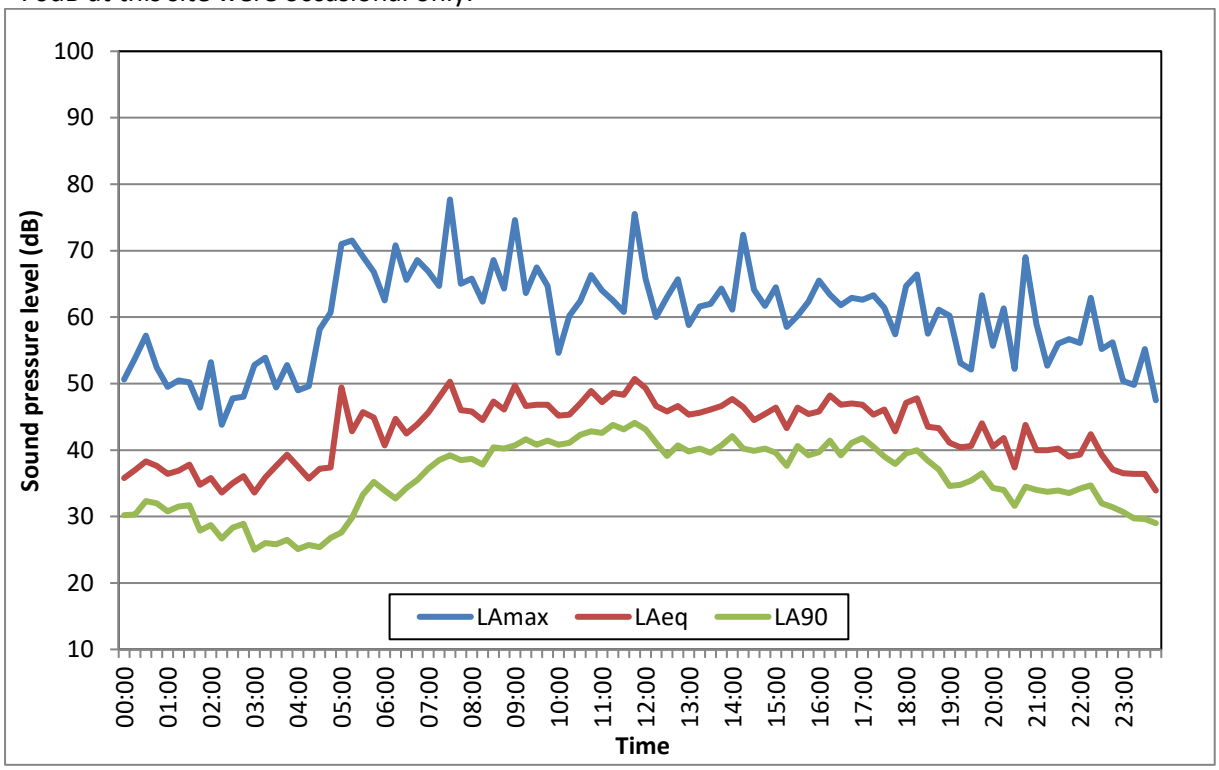
MS23 – Leiston Centre



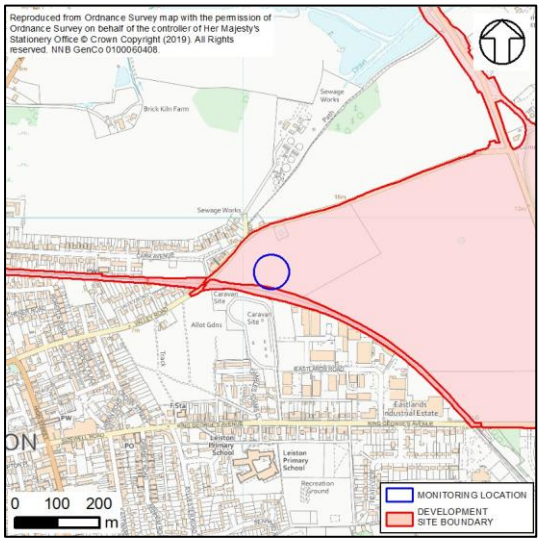
Site Description: Free-field location within back garden of property on Buller Road in sight of Sizewell branch rail line.

Dates: 7-21 August 2014

Notes: Unattended survey over fourteen days. Background, ambient and maximum sound levels are presented for a typical day. The sound climate in this location was comprised of road traffic, bird song from various species, and activity associated with residential use. Ambient sound levels were typically around 47dB during the day and 40dB or below during the night. Background sound levels were typically around 40dB during the day and 30dB or below at night. L_{Amax} events over 70dB at this site were occasional only.



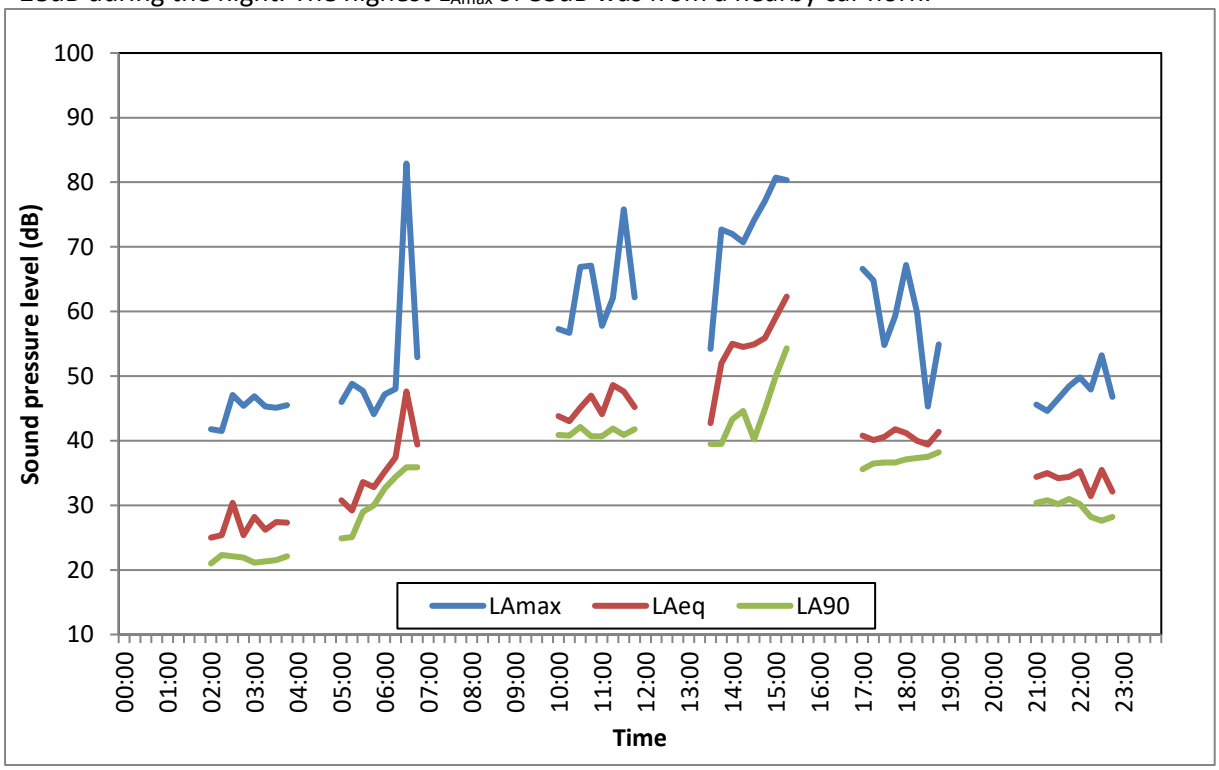
MS24 – Valley Road, Leiston



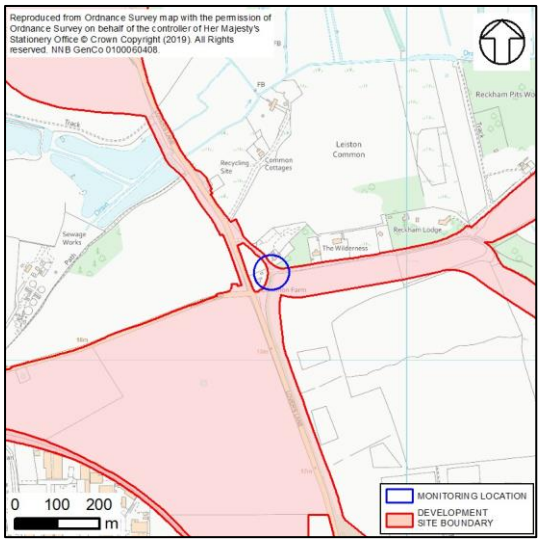
Site Description: Free-field location on grass on edge of footpath off Valley Road and alongside railway line.

Dates: 16, 17, 22, 30 October 2014, 3-4 July 2019

Notes: The sound climate was comprised of road traffic including tractors, occasional aircraft, birdsong from various species, general activity on a nearby industrial estate, people walking by on footpath and barking dogs. Ambient sound levels were typically around 45dB during the day and 35dB during the night. Background sound levels were typically around 40dB during the day and 28dB during the night. The highest L_{Amax} of 83dB was from a nearby car horn.



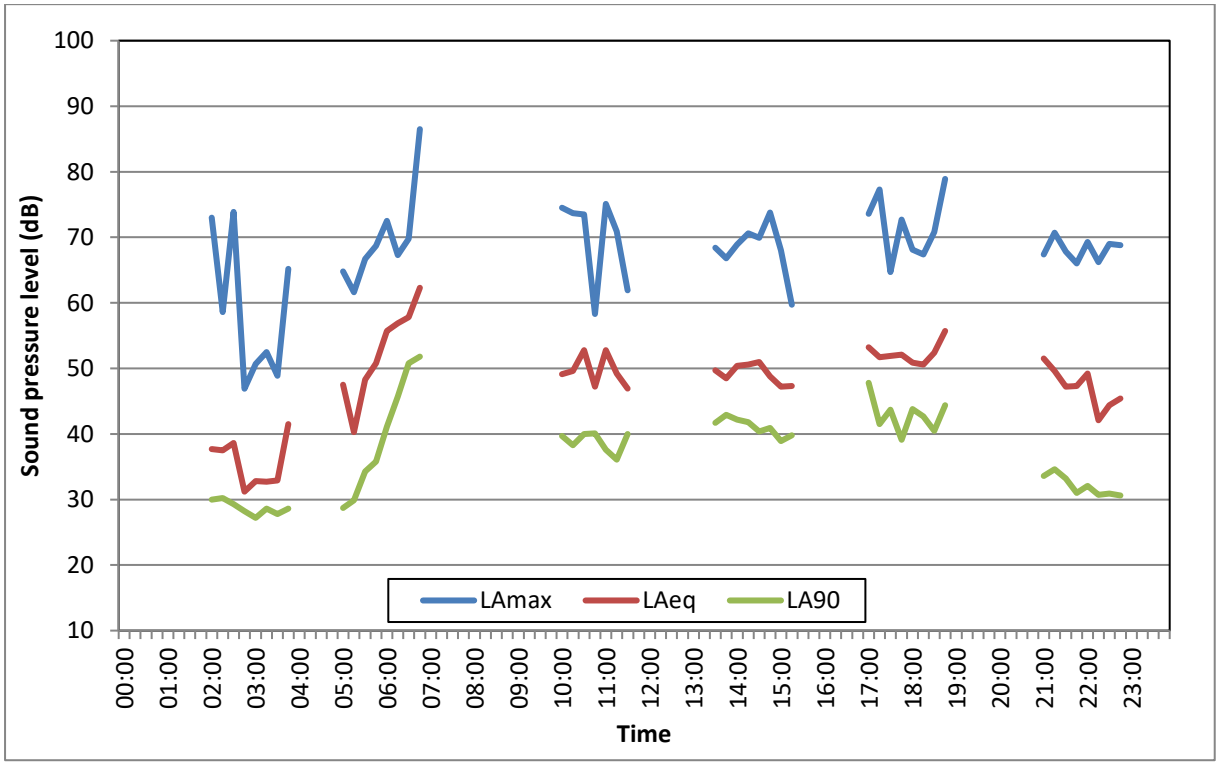
MS25 – Sandy Lane West



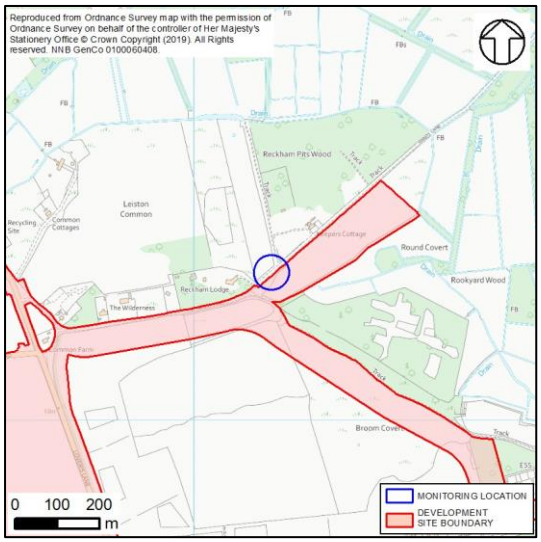
Site Description: Free-field location on edge of grassy verge between Sandy Lane and field entrance.

Dates: 14, 15, 30 October 2014

Notes: The sound climate was comprised of road traffic, including tractors, occasional aircraft, barking dogs and property maintenance related activities. Ambient sound levels were typically around 50dB during the day. Background sound levels were typically around 45dB during the day and 30dB during the night. The high L_{Amax} levels in the early morning are thought to be from passing vehicles.



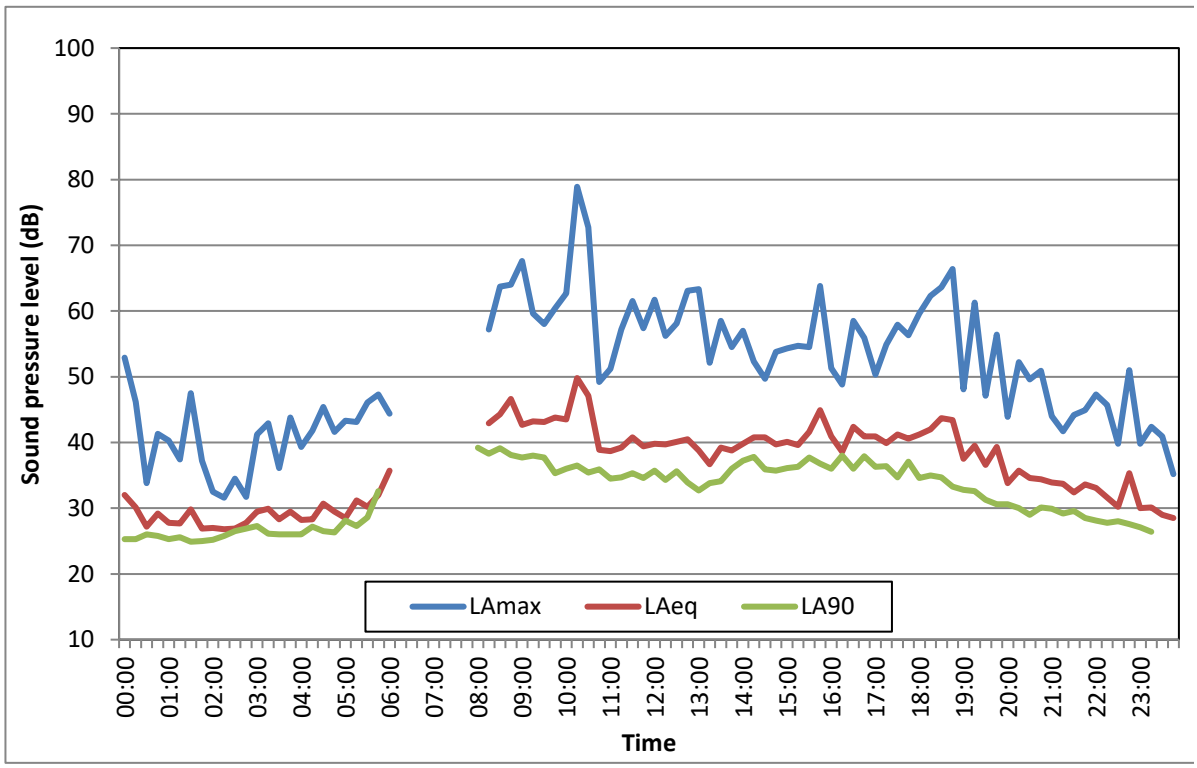
MS26 – Keepers Cottage



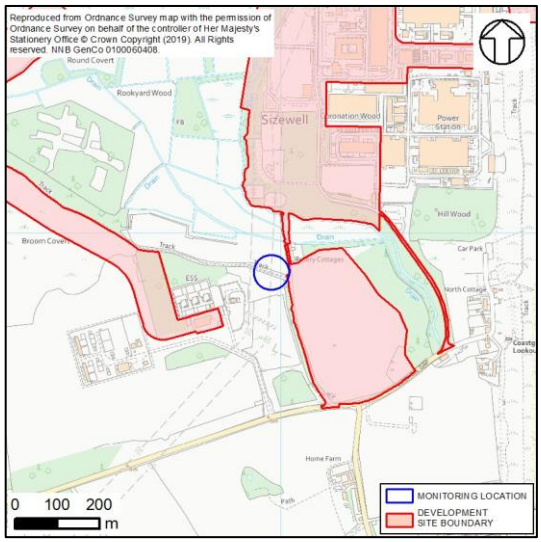
Site Description: Free-field location on track, near corner with driveway to cottage.

Dates: 30 September, 1 October 2014, 24 June, 2 July 2019

Notes: The sound climate was comprised of dog barking, birdsong of various species, cricket and other insect calls, distant reversing and excavator noises, and light DIY activity at a nearby dwelling. A low frequency humming sound was also detectable from the operational Sizewell B station. Ambient sound levels were typically around 42dB during the day and 30dB during the night. Background sound levels were typically around 35dB during the day and below 30dB during the night.



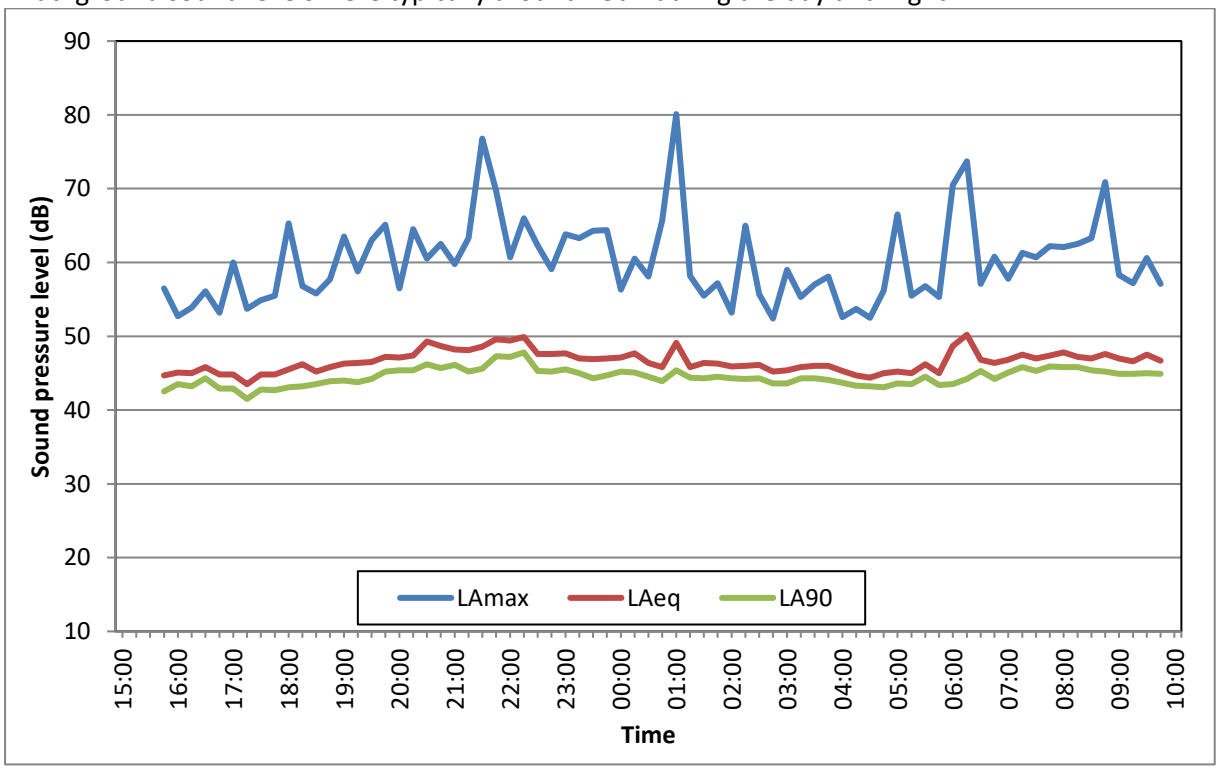
MS27 – Rosery Cottage



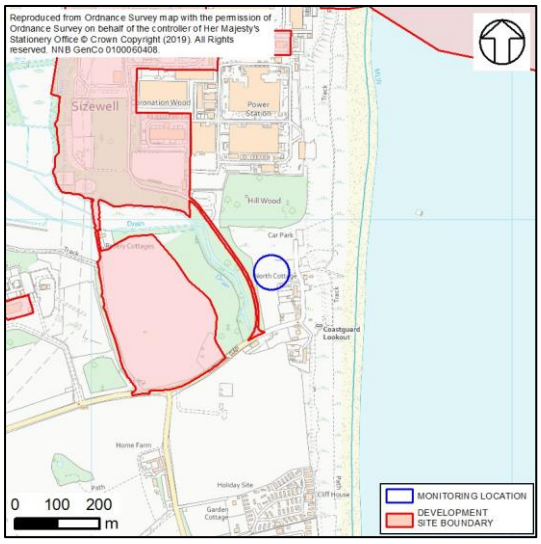
Site Description: Free-field location, just off path south of Rosery Cottage, approximately 250 metres from nearest road.

Dates: 29-30 September 2015, 24 June, 3 July 2019

Notes: The sound climate was comprised of operational sound and sources at the operating Sizewell B station, sound from the neighbouring electrical substation site, and birdsong from various species. Ambient sound levels were typically around 47dB during the day and night. Background sound levels were typically around 45dB during the day and night.



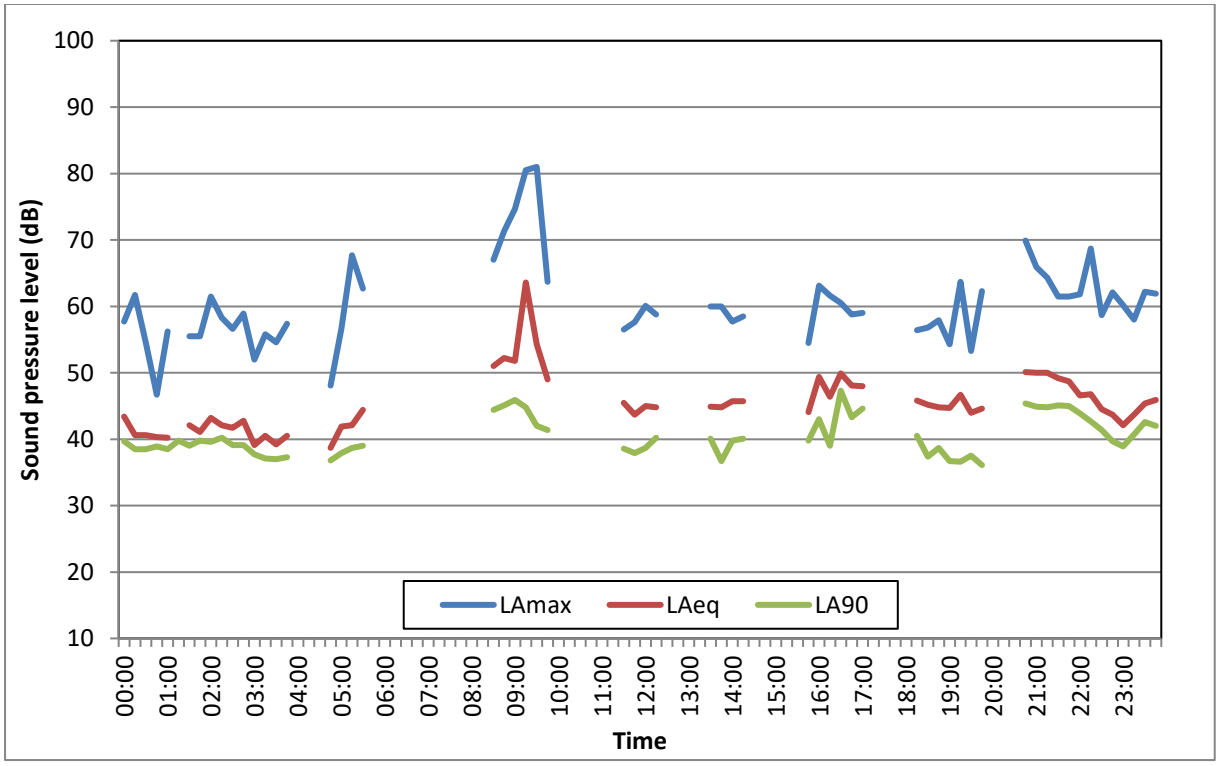
MS28 – Sizewell Village



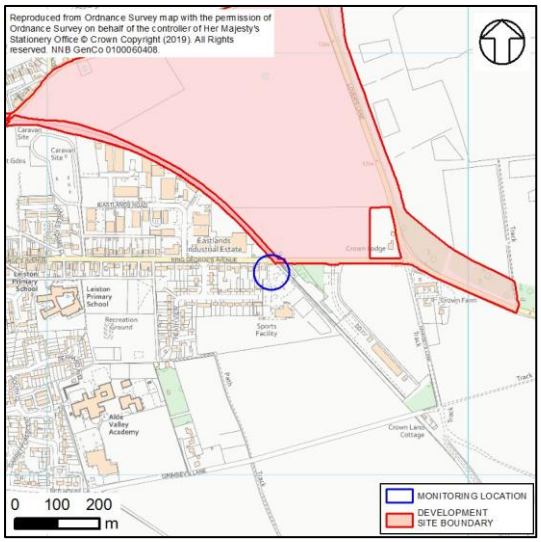
Site Description: Free-field location within grassed area at western end of Sizewell beach car park.

Dates: 30 September, 1, 9, 10 October 2014, 24 June, 2 July 2019

Notes: The sound climate was comprised of birdsong from various species, distant construction noise, occasional aircraft, vehicles and activity in the car, and vehicles on the Sizewell access road. The sound of the sea was also significant during quieter periods, particularly at night. Ambient sound levels were typically around 48dB during the day and 43dB during the night. Background sound levels were typically around 43dB during the day and 40dB during the night. L_{Amax} event of 80dB was from a construction site grinder. Levels at this site will vary depending on sea conditions.



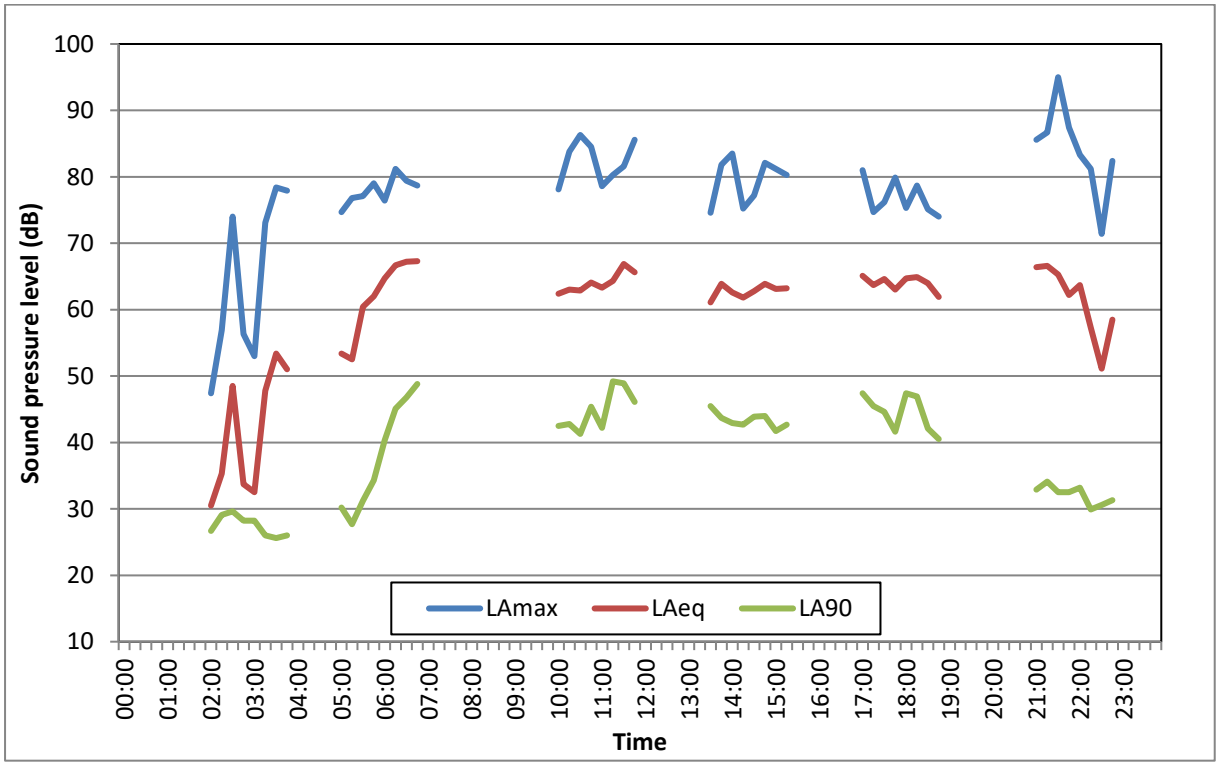
MS29 - Leiston Rail Crossing, King George's Avenue



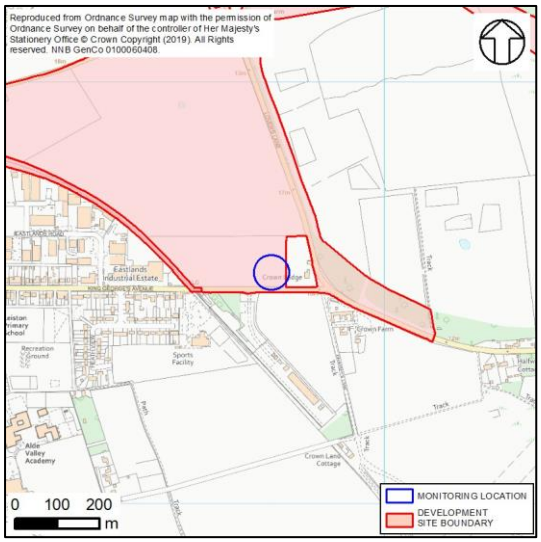
Site Description: Free-field location within entrance to EDF Sizewell Sports and Social Club, 4.5 metres from kerb of road.

Dates: 14, 15, 24, 30 October 2014, 2 July 2019

Notes: The sound climate was comprised of near and distant road traffic, including heavy goods vehicles, birdsong from various species, occasional aircraft and general grounds maintenance of the sports and social club. L_{Amax} events of 70-90dB were caused from vehicles entering the sports and social club and also heavy goods vehicles on the main road. Ambient sound levels were typically around 65dB during the day. Background sound levels were typically around 45dB during the day and around 35dB at night. High L_{Amax} events in the early hours of the morning were from occasional passing vehicles.



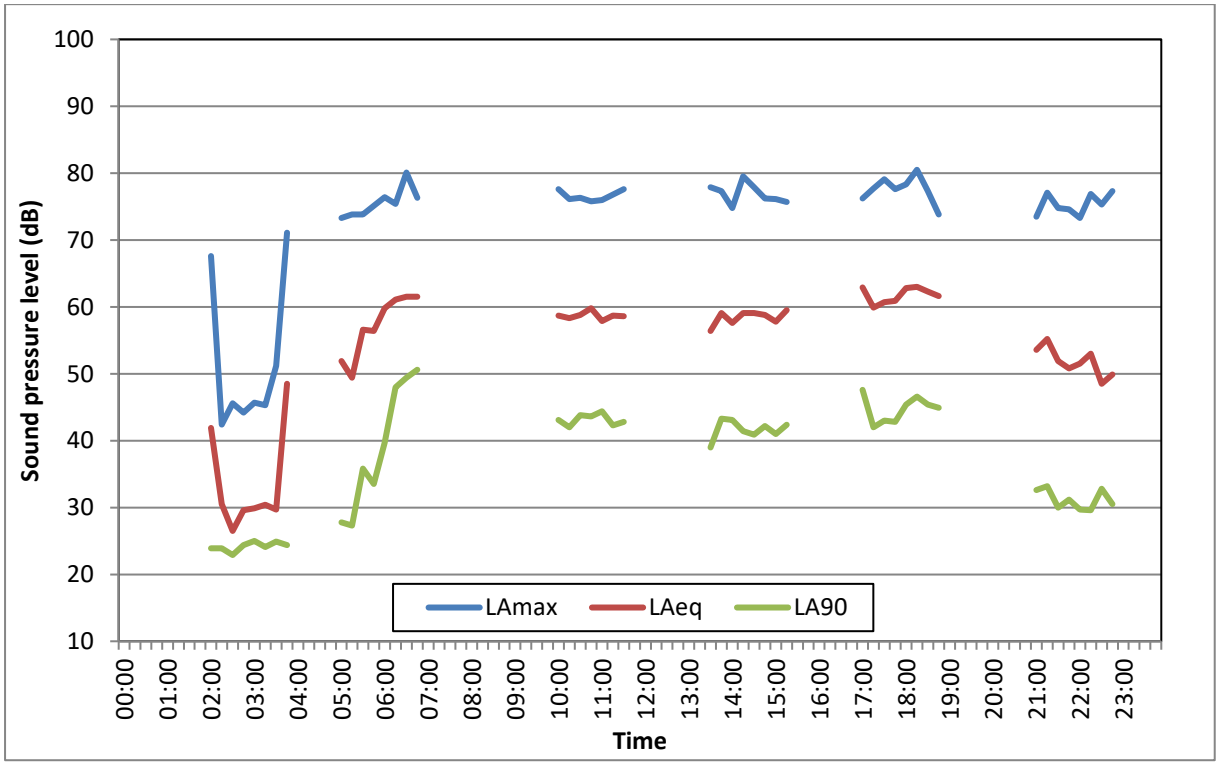
MS30 – Crown Lodge



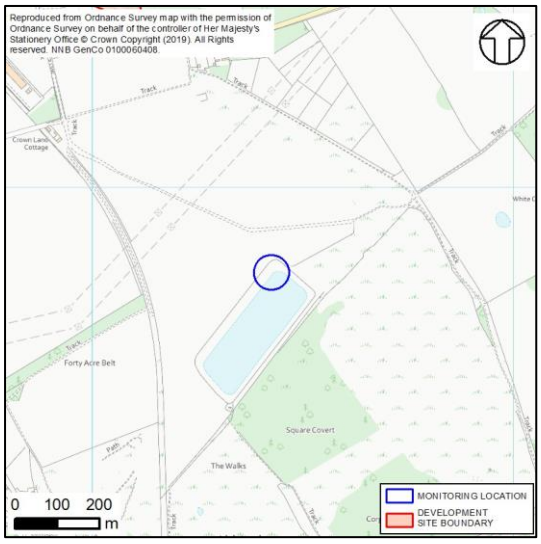
Site Description: Free-field location within field to west of Crown Lodge, 14 metres from King George's Avenue.

Dates: 23 October 2014, 2 July 2019

Notes: The sound climate was comprised of near and distant road traffic, birdsong from various species, occasional aircraft and distant industrial activity. L_{Amax} events were generally from vehicle pass-bys. Ambient sound levels were typically around 60dB during the day. Background sound levels were typically around 45dB during the day and 30dB during the night. High L_{Amax} events in the early hours of the morning were from occasional passing vehicles.



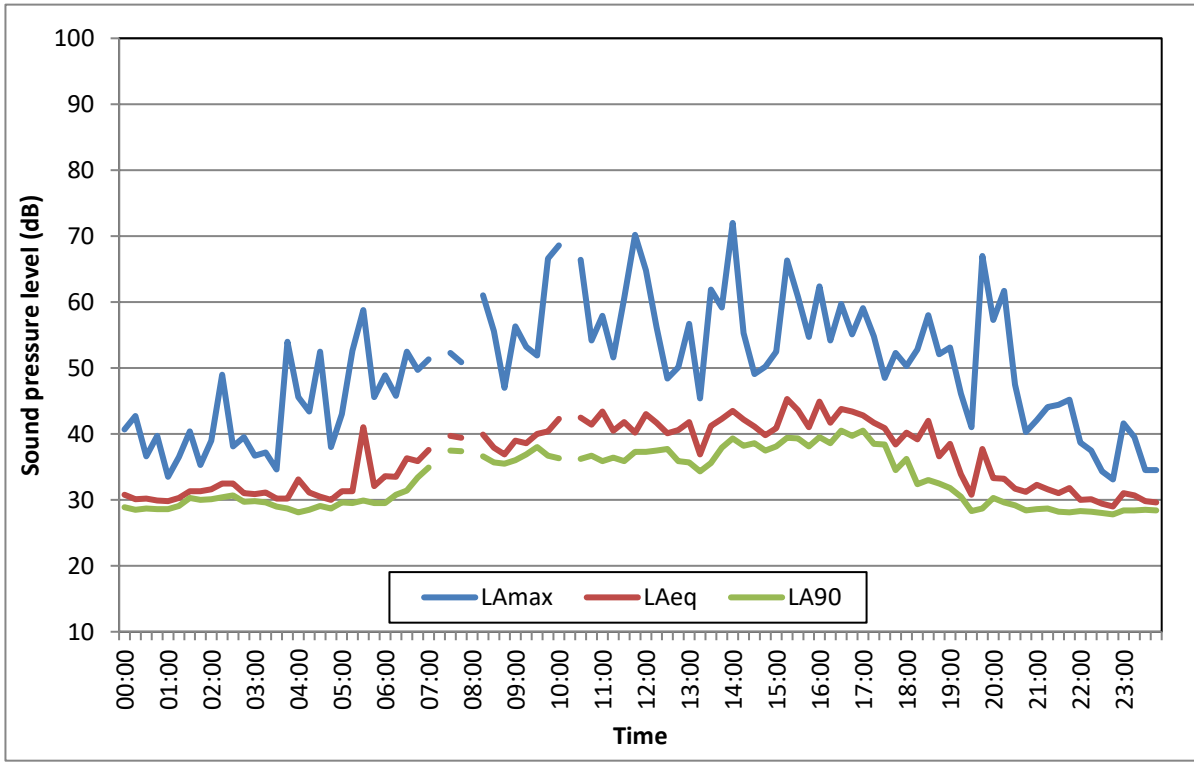
MS31 – Sandlings



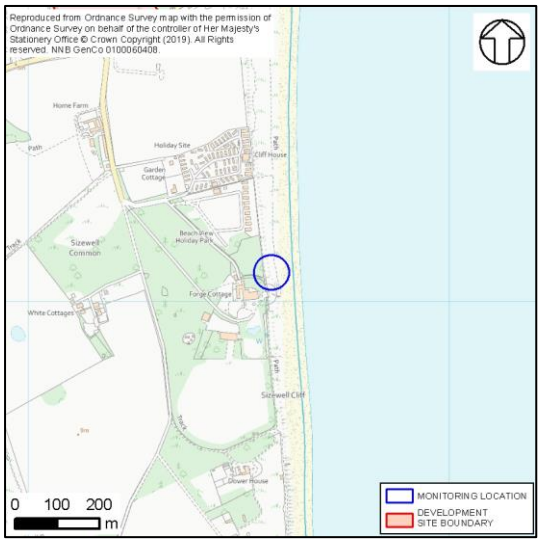
Site Description: Free-field location on edge of footpath near reservoir. Significant distance from nearest road.

Dates: 2-3 September 2014, 11 June, 3 July 2019

Notes: The sound climate was comprised of distant road traffic, birdsong from various species, construction type activity, occasional aircraft and tractors in fields. Ambient sound levels were typically around 42dB during the day and 32dB during the night. Background sound levels were typically between 30 to 38dB during the day depending on the environmental sources, most notably birds around the reservoir. Background sound levels were around 30dB during the night. L_{Amax} events of 70dB were from nearby gulls. 2019 validation survey noted little birdsong, with similar ambient levels. Background levels, however, were measured at below 30dB during the day.



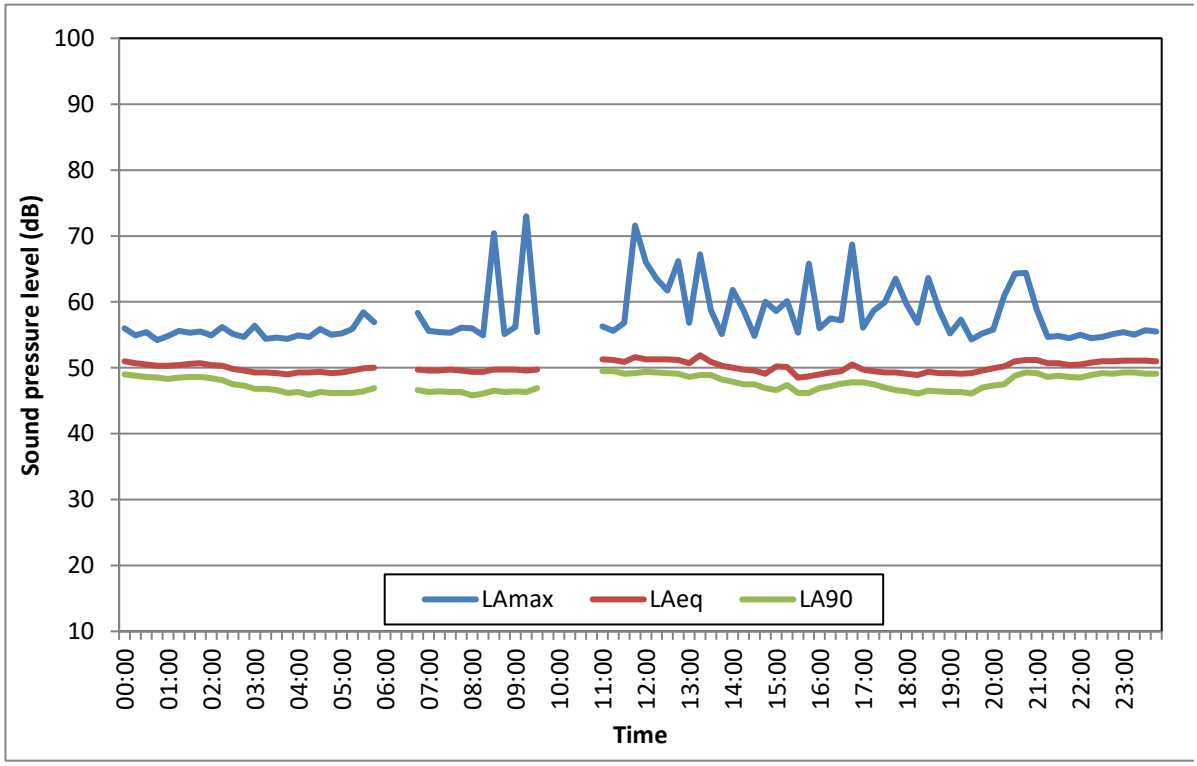
MS32 – Sizewell Campsite



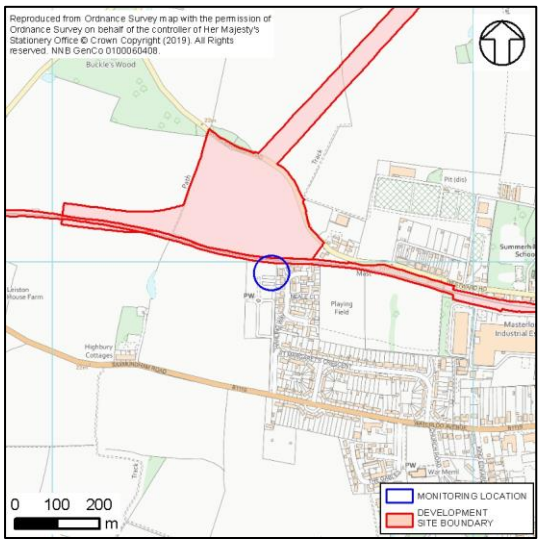
Site Description: Free-field location, ten metres to east of coast path at southern end of campsite. Significant distance from nearest road.

Dates: 2-3 September 2014

Notes: The sound climate was comprised of sounds associated with the sea, birdsong from various species, walkers on the coast path, dogs barking, and grounds maintenance activity. Ambient sound levels were typically around 50dB throughout the day and night. Background sound levels were typically around 48dB. There was very little variation in sound levels between day and night, likely to be because of the presence of the sound of the sea on the shingle beach. Sea state conditions would most often determine the levels measured at this position.



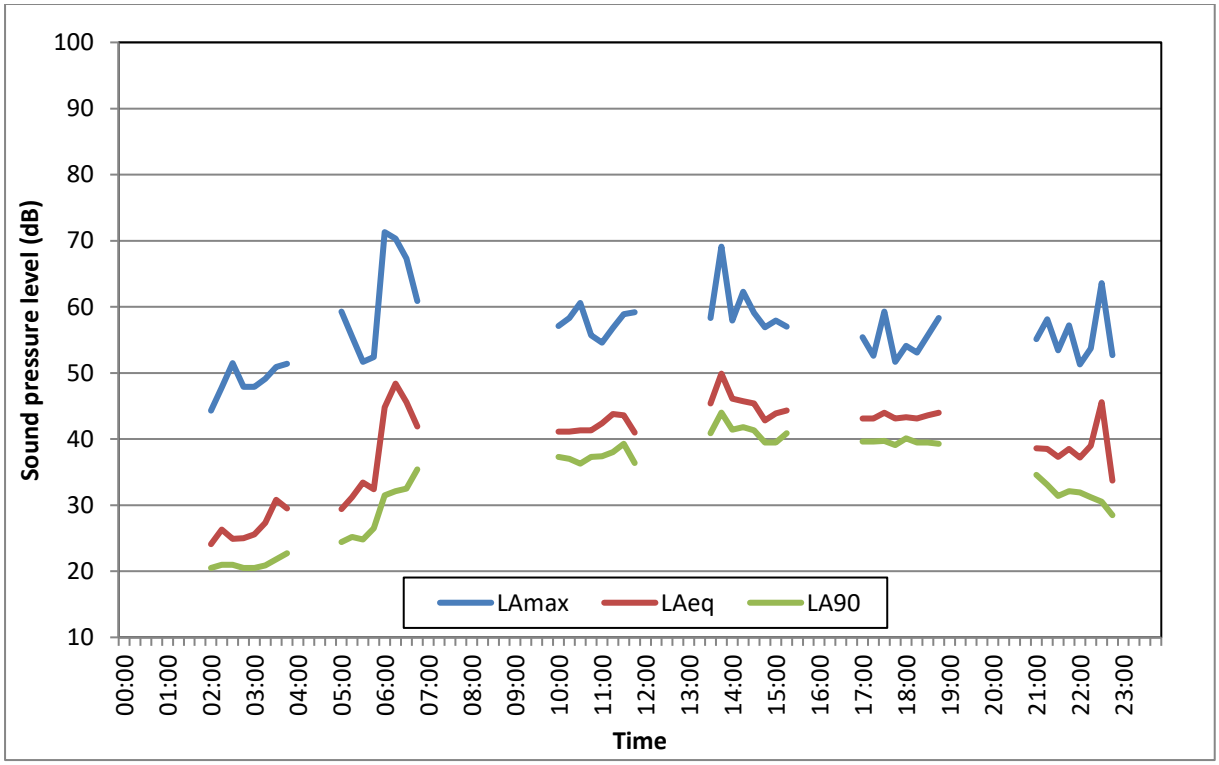
MS33 – Leiston West



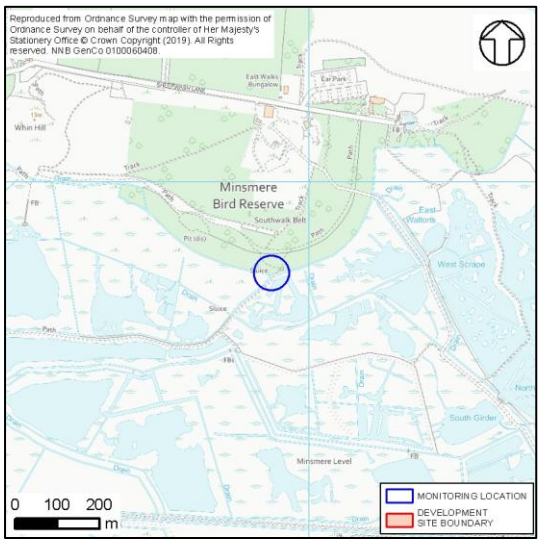
Site Description: Free-field location within parking area off Harling Way close to a railway line.

Dates: 28, 31 October 2014

Notes: The sound climate was comprised of near and distant road traffic (including from B1119), birdsong from various species, occasional aircraft, barking dogs and distant shotguns. Ambient sound levels were typically around 45dB during the day. Background sound levels were typically 38dB during the day and below 30dB during the night. L_{Amax} event of 70dB was from a car in the parking area.



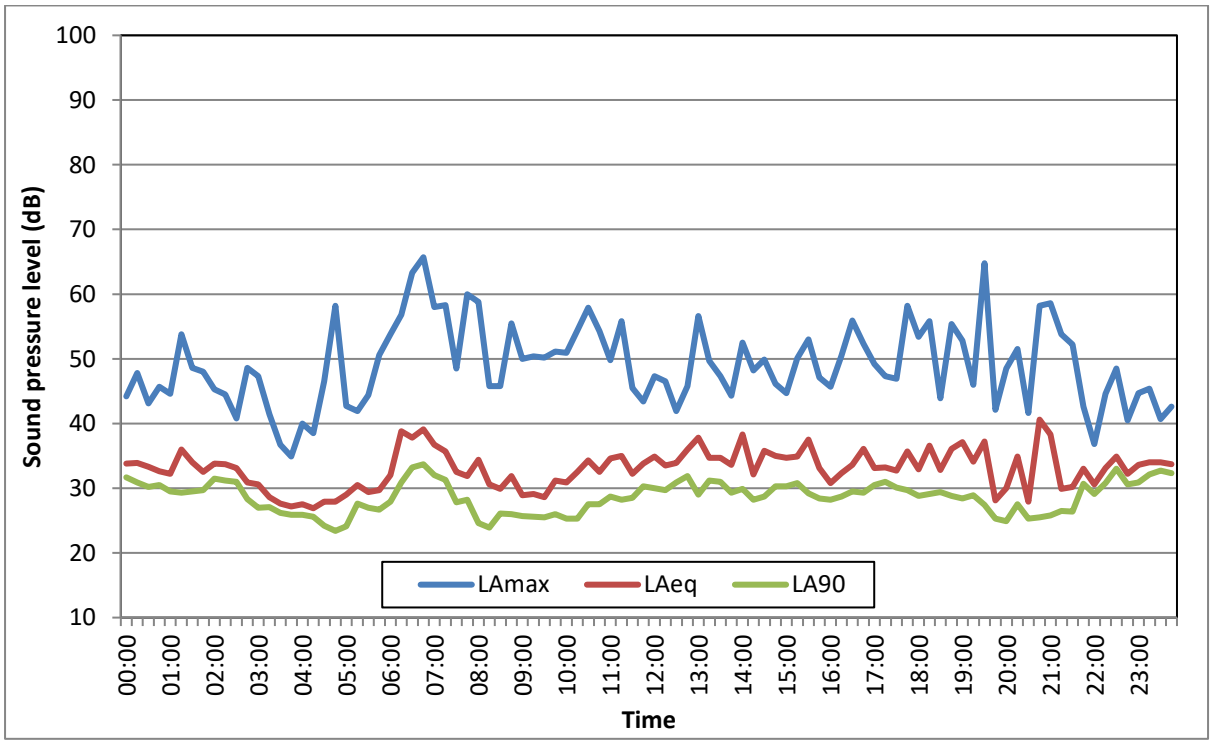
MS34 – Minsmere (Bittern Hide)



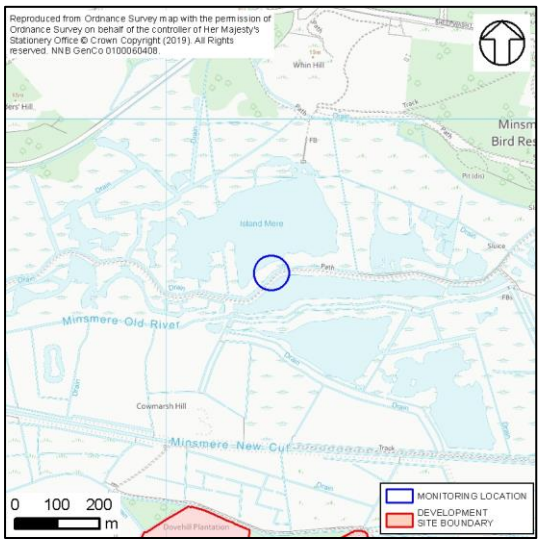
Site Description: Free-field location on edge of track through marshland, around 50 metres from Bittern Hide and woodland. At significant distance from any road.

Dates: 16-30 September 2014, 18 June 2019

Notes: Unattended survey over 14 days, and attended survey in 2019. Background, ambient and maximum sound levels are presented for a typical day. The sound climate was comprised of bird song and calls from various species, visitors walking on footpaths, and occasional aircraft. Environmental management activities were noted on site including rangers on quadbikes, and hedge/tree cutting. Ambient sound levels were typically around 37dB. Background sound levels were typically around 30dB during the day, dropping to around 24dB during the early hours of the morning. Levels at this site are variable depending on seasonality, which affects bird activity.



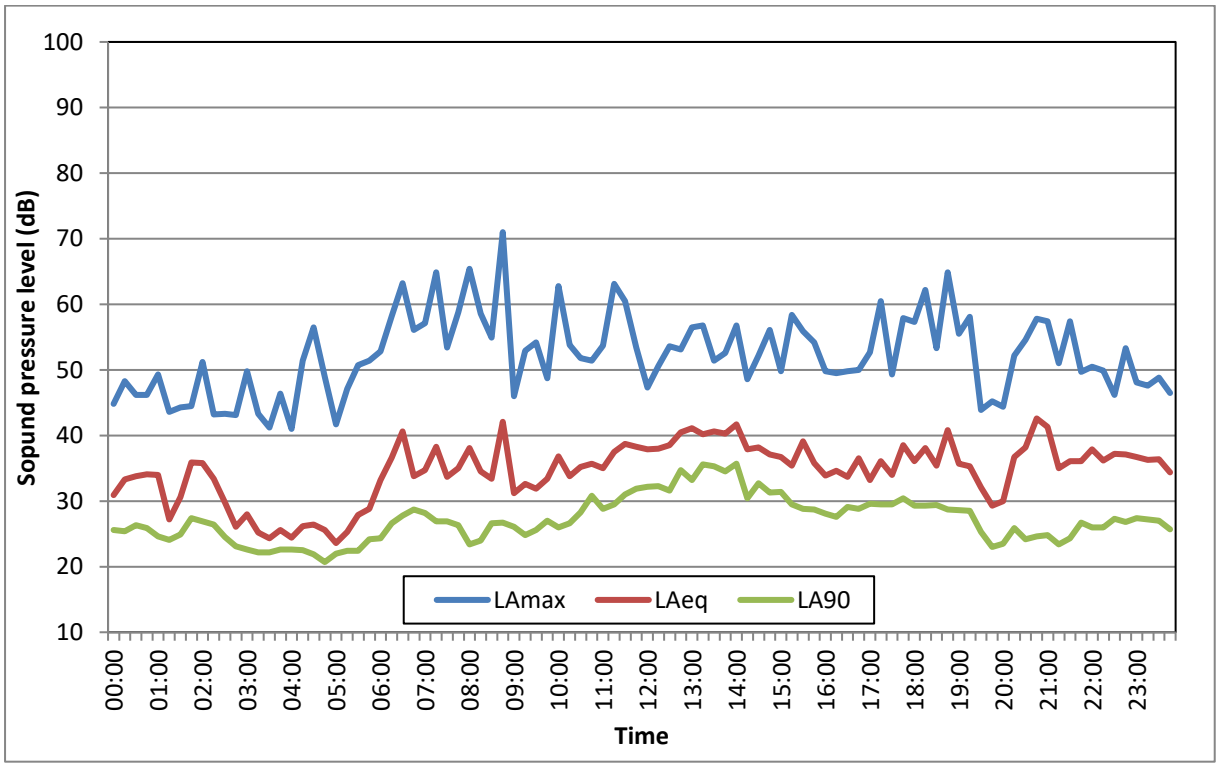
MS35 – Minsmere (Post N)



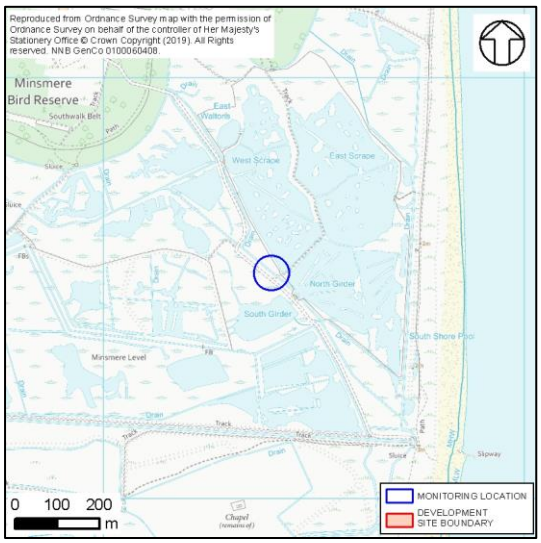
Site Description: Free-field location on edge of track through marshland, at marker post N. At significant distance from any road.

Dates: 16-30 September 2014

Notes: Unattended survey over 14 days, and attended in 2019. Background, ambient and maximum sound levels are presented for a typical day. The sound climate comprised bird song calls from various species, visitors walking on footpaths, and occasional aircraft. Environmental management activities were noted on site including rangers on quadbikes, and hedge/tree cutting. Ambient sound levels were typically around 38dB with a decrease at night. Background sound levels were typically 30dB during the day, dropping to around 22dB during the early hours of the morning.



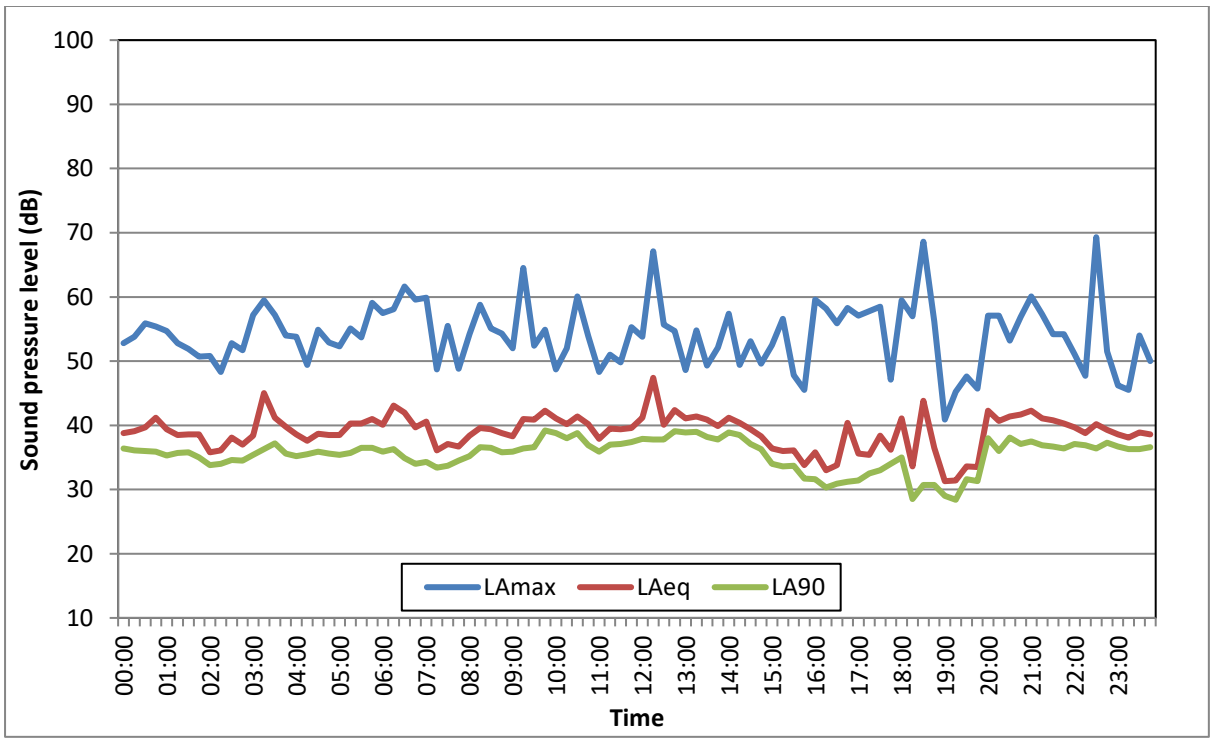
MS36 – Minsmere (South Hide)



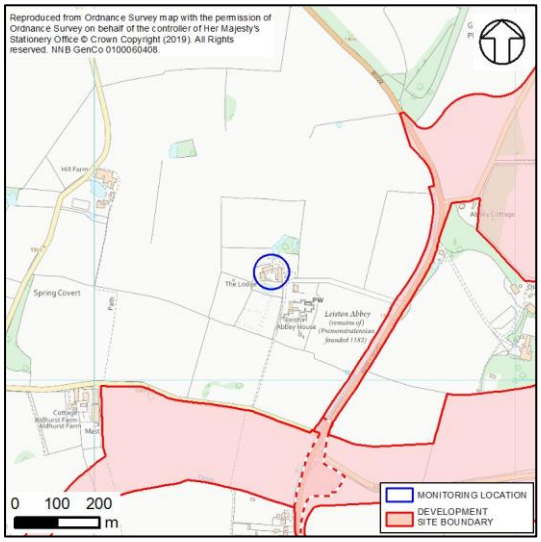
Site Description: Free-field location on edge of lake within marshland, around 30 metres from South Hide. At significant distance from any road.

Dates: 16-30 September 2014, 22 October 2015, 18 June 2019

Notes: Set up for 14 day unattended survey but suffered equipment malfunction after around 24 hours. The main sound climate was comprised of bird song calls from various species, visitors walking on footpaths, and occasional aircraft. Environmental management activities were noted on site including rangers on quadbikes, and hedge/tree cutting. Ambient sound levels typically around 40dB throughout the day and night. Background sound levels were typically around 37dB throughout the day and night. L_{Amax} events over 60dB were from birds calling close to the meter. Levels at this site are variable depending on seasonality, which affects bird activity.



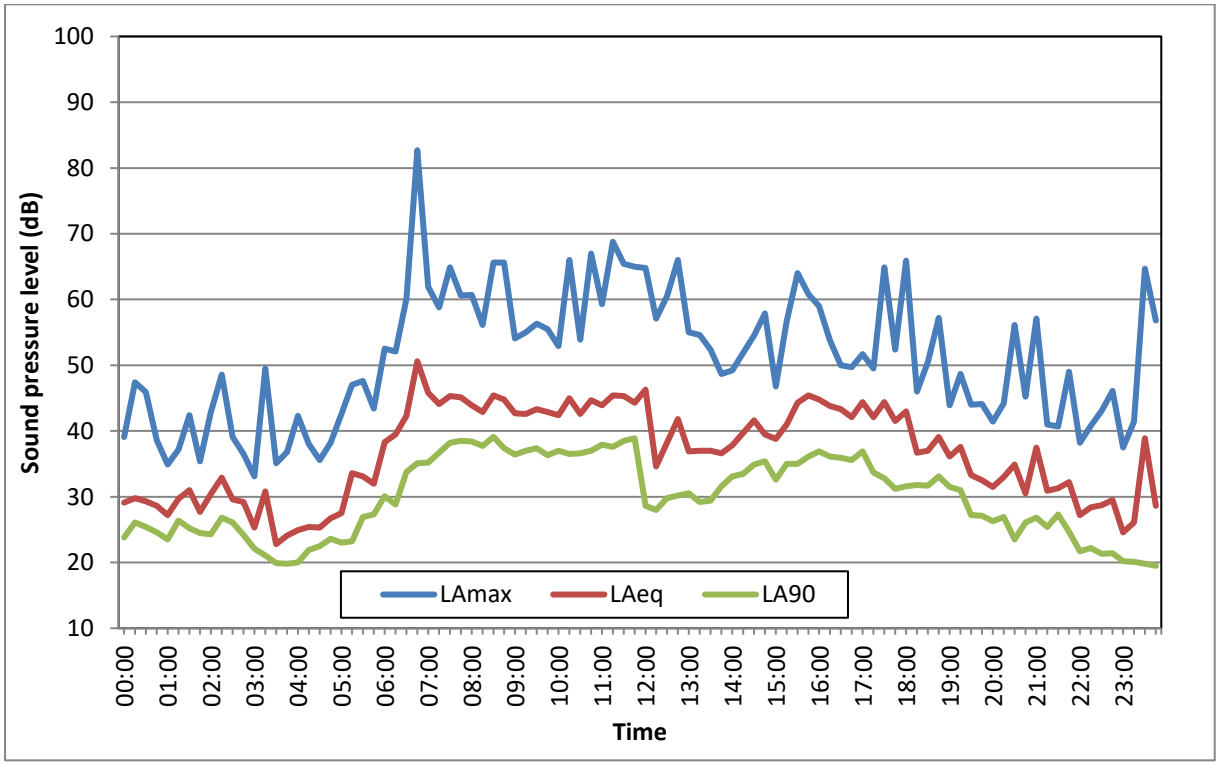
MS38 – Leiston Abbey Courtyard



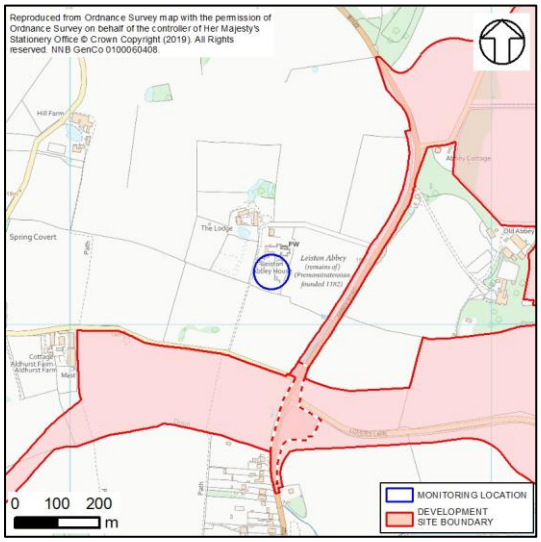
Site Description: Free-field location within courtyard of property. At significant distance from any public road.

Dates: 23-30 November 2015

Notes: Unattended survey over seven days. Background, ambient and maximum sound levels are presented for a typical day. The sound climate comprised of distant road traffic noise, occasional aircraft, occasional ground maintenance activity and birdsong from various species. Ambient sound levels were typically around 43dB during the day and 30dB at night. Background sound levels were typically around 35dB during the day and 26dB at night. L_{Amax} events were likely to be from activities in the courtyard.



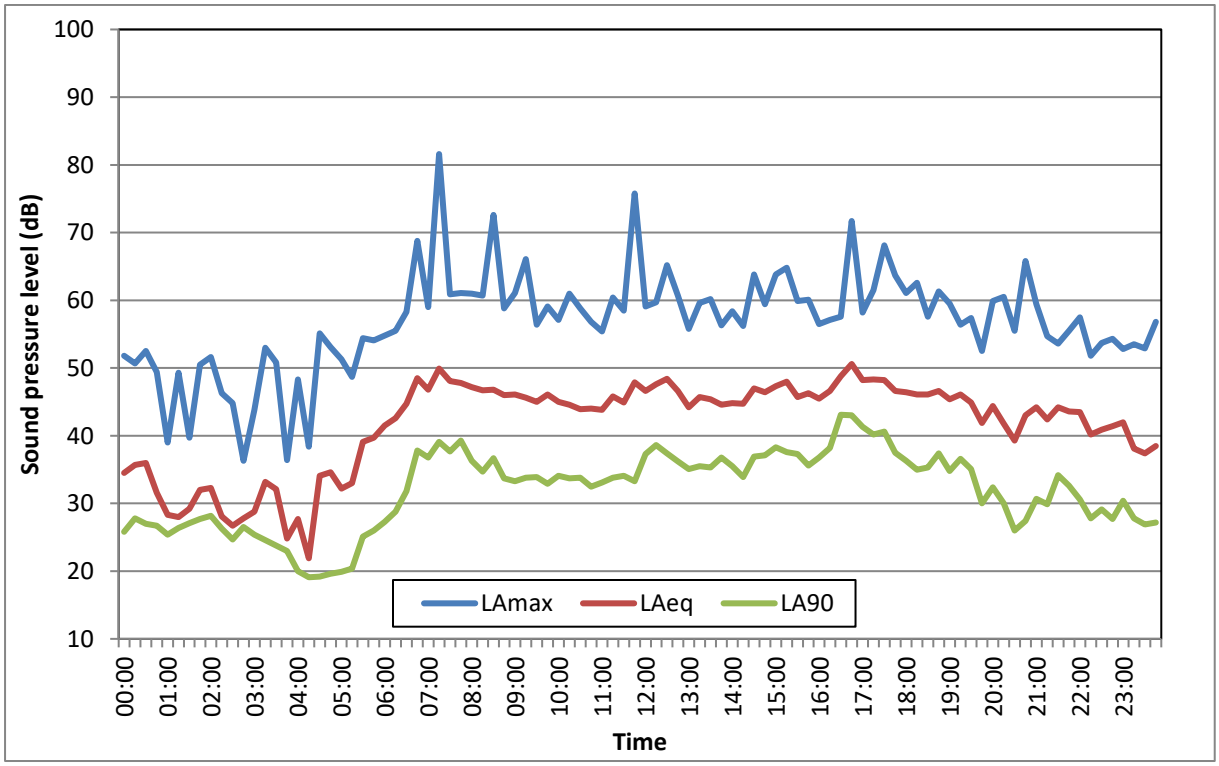
MS39 – Leiston Abbey residential block



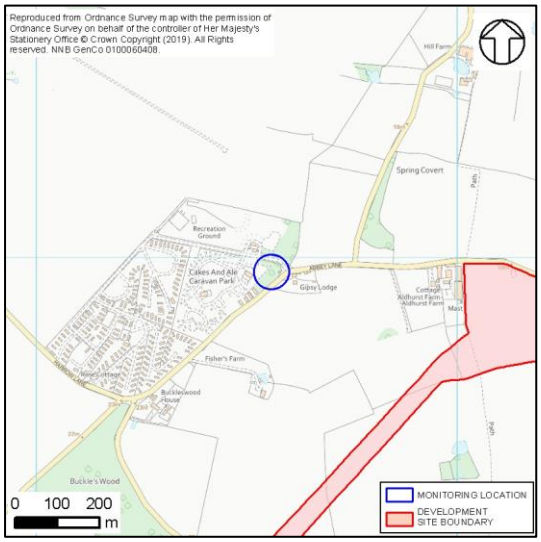
Site Description: Façade location, one metre from elevated window on rear façade of property.

Dates: 4-11 September 2014

Notes: Unattended survey over seven days. Background, ambient and maximum sound levels are presented for a typical day. Ambient sound levels were typically around 45-50dB during the day and 35dB at night. Background sound levels were typically around 37dB during the day and 26dB at night.



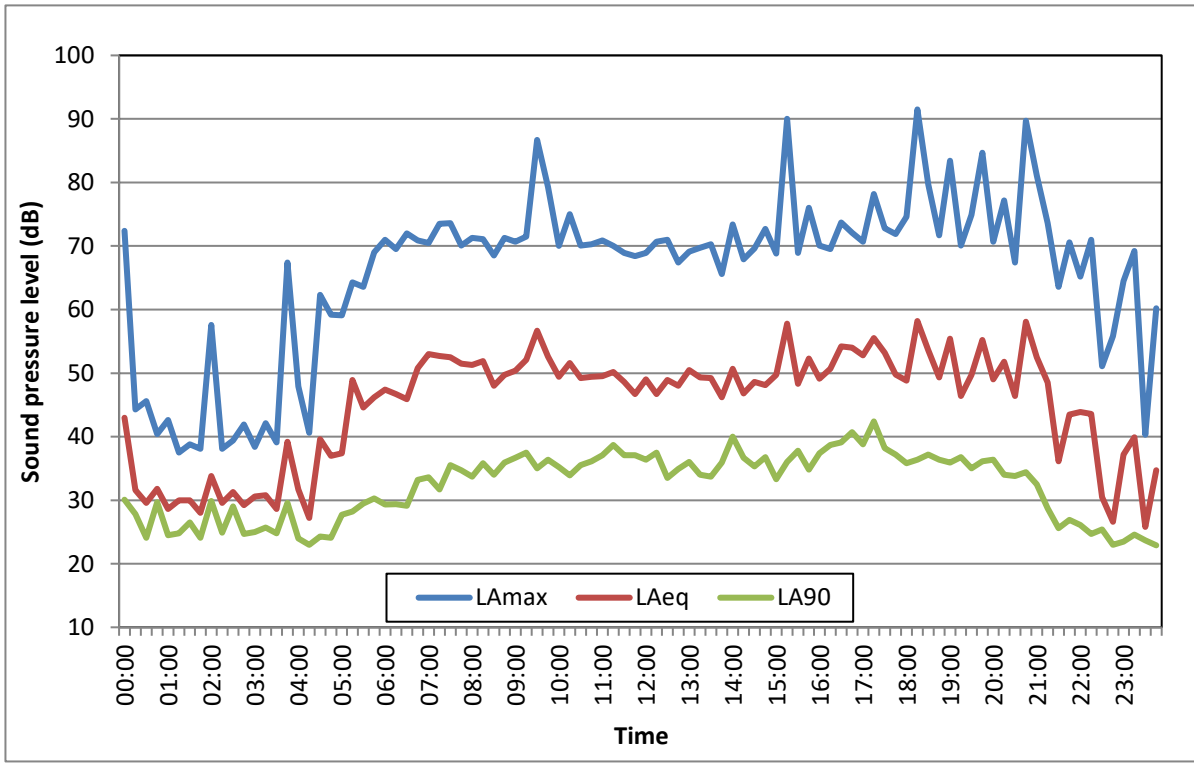
MS40 – Cakes and Ale Entrance



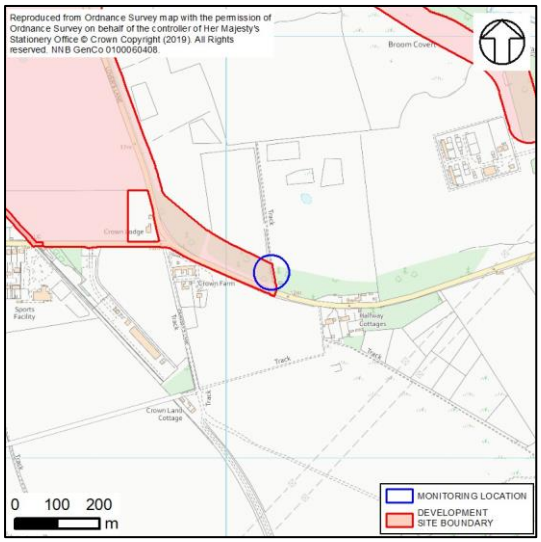
Site Description: Free-field location near to entrance of Cakes and Ale camping and caravan park.

Date: 7-15 August 2014

Notes: Unattended survey over seven days. Background, ambient and maximum sound levels are presented for a typical day. The sound climate was comprised of road traffic, birdsong, and activities associated with a camping and caravan site, including people moving on and off the site. Ambient sound levels were typically around 53dB during the day and 40dB or below during the night. Background sound levels were typically around 36dB during the day and 26dB during the night. L_{Amax} events over 80dB at this site were only occasional, the source of which is likely to be from traffic, including heavy goods vehicles passing close to the site.



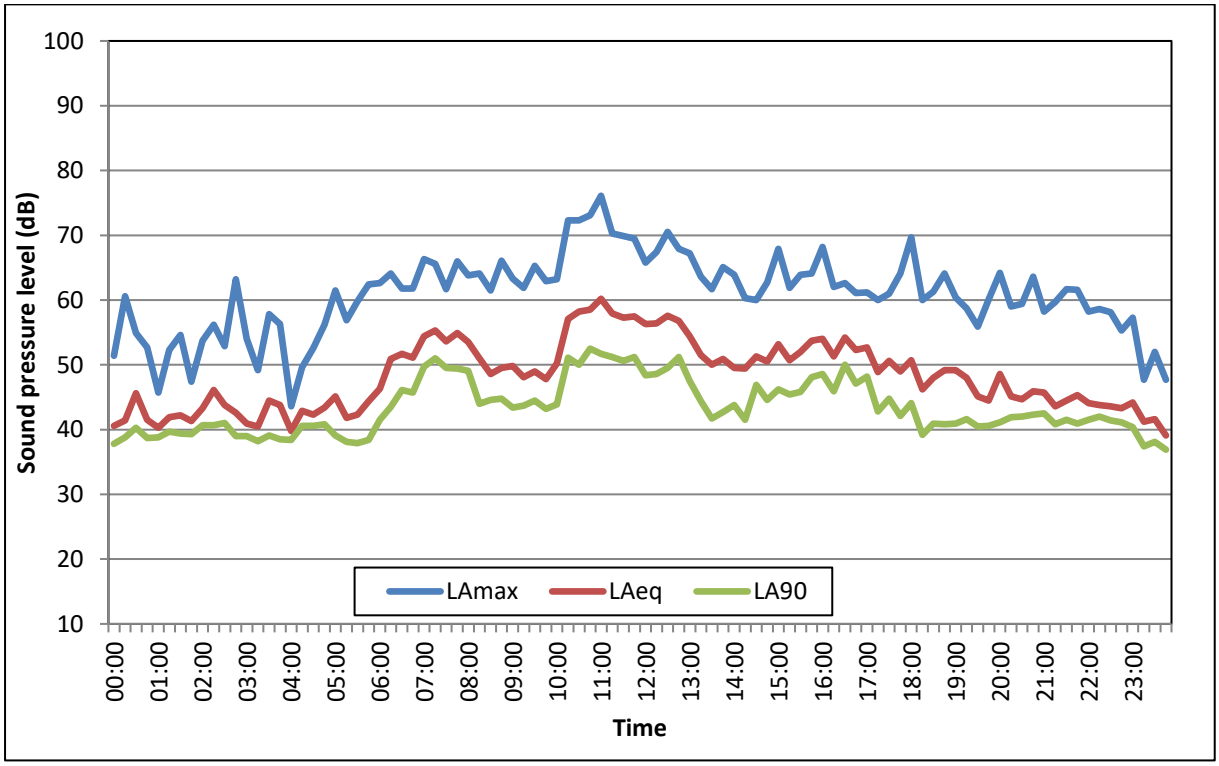
MS41 – Sizewell Gap



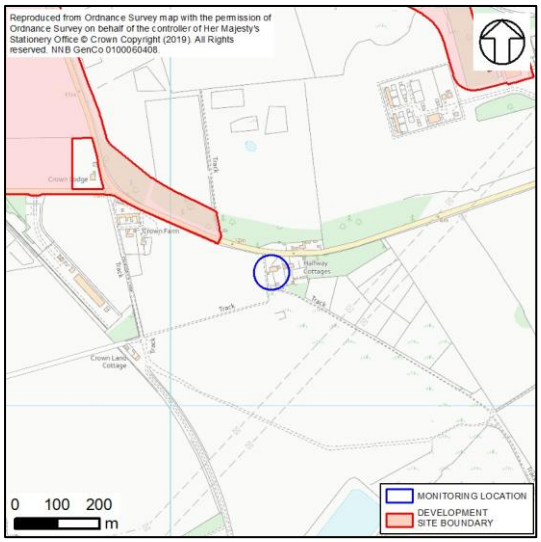
Site Description: Free-field location, 60 metres from road

Dates: 13 to 14 October 2015

Notes: The sound climate comprised mostly of road traffic noise from vehicles passing on Sizewell Gap. A low frequency tone from Sizewell B station was audible during quieter periods. Birdsong also contributed to measured levels. Ambient sound levels were typically 54dB during the day and 45dB during the night. Background sound levels were typically 45dB during the day and 40dB at night.



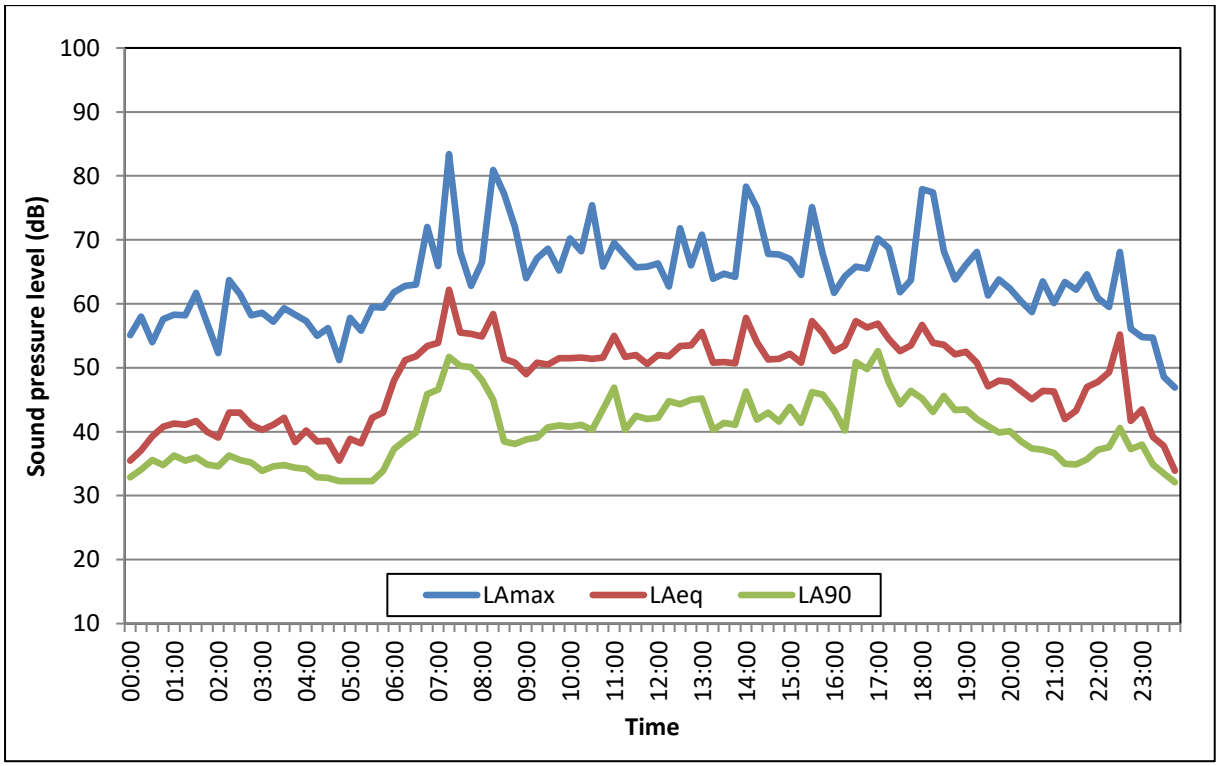
MS42 – Halfway Cottages



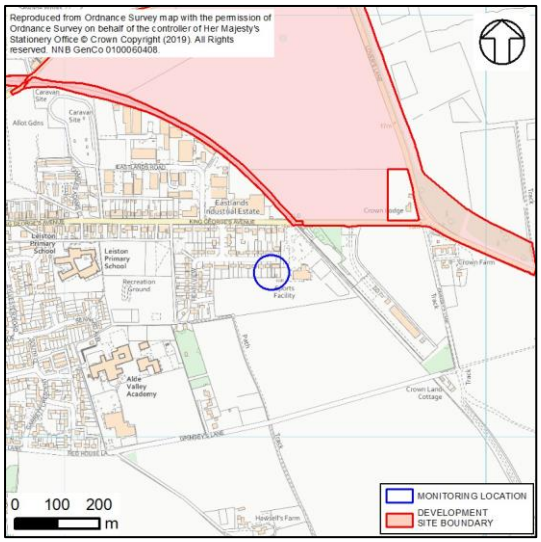
Site Description: Free-field location, 50 metres from road

Dates: 14 to 15 October 2015, 11 June, 10 July 2019

Notes: The main contribution to ambient sound levels was from road traffic on Sizewell Gap Road. Birdsong, agricultural activities and noise from pigs in a neighbouring field also contributed to measured levels. In 2019 it was noted that the neighbouring fields had crops rather than livestock, but tractors and sprayers in use. Typical ambient levels were 54dB during the day and 42dB at night. Background levels were typically 45dB in the day and 35dB at night.



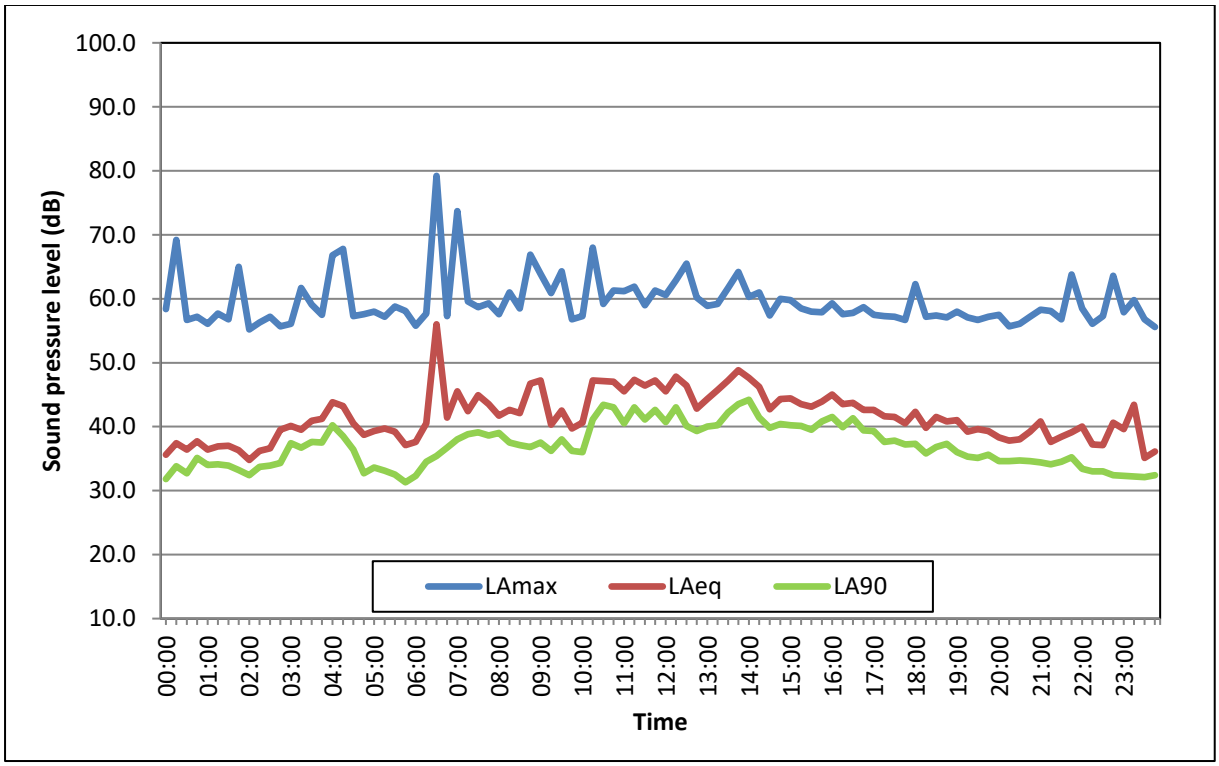
MS45 – Heath View, Eastern end



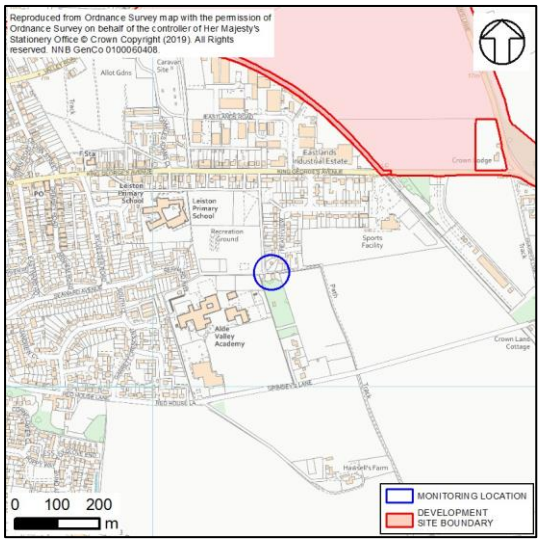
Site Description: Free-field location, adjacent to eastern end of Heath View

Dates: 14 to 15 October 2015

Notes: The sound climate comprised local road traffic noise including vehicles in parking area and occasional aircraft. Sound from agricultural machinery was audible at times as was birdsong. Ambient sound levels were typically 46dB during the day and 40dB at night. Background sound levels were around 40dB during the day and 35dB at night. The highest L_{Amax} generated by vehicle doors in parking area.



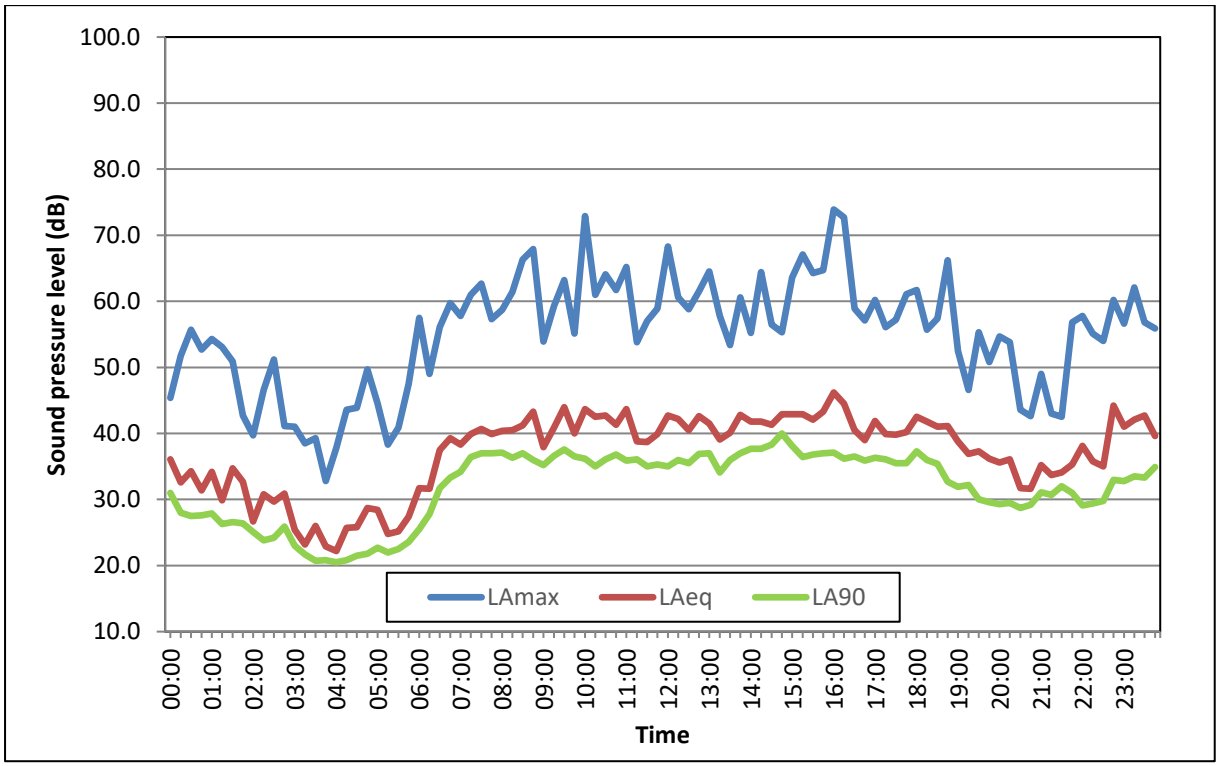
MS46 – Heath View, Southern End



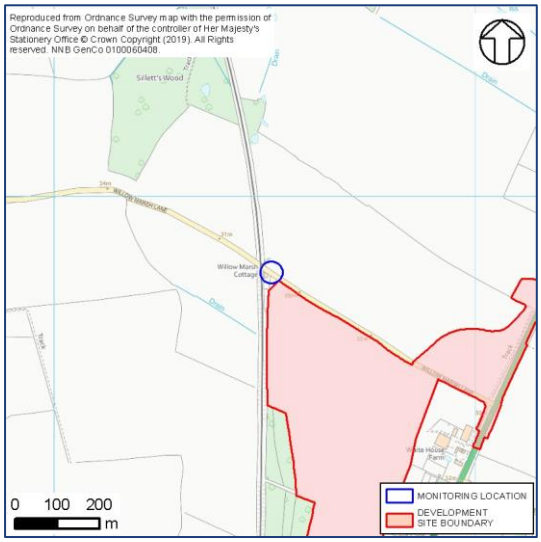
Site Description: Free-field location close to the southern end of Heath View

Dates: 6 to 7 October 2015

Notes: The sound climate included road traffic and occasional aircraft with agricultural machinery in the distance. More locally children were playing football and school activity audible. Typical ambient sound levels were 43dB during the day and falling below 30dB at night. Background sound levels were around 37dB during the day and 28dB at night.



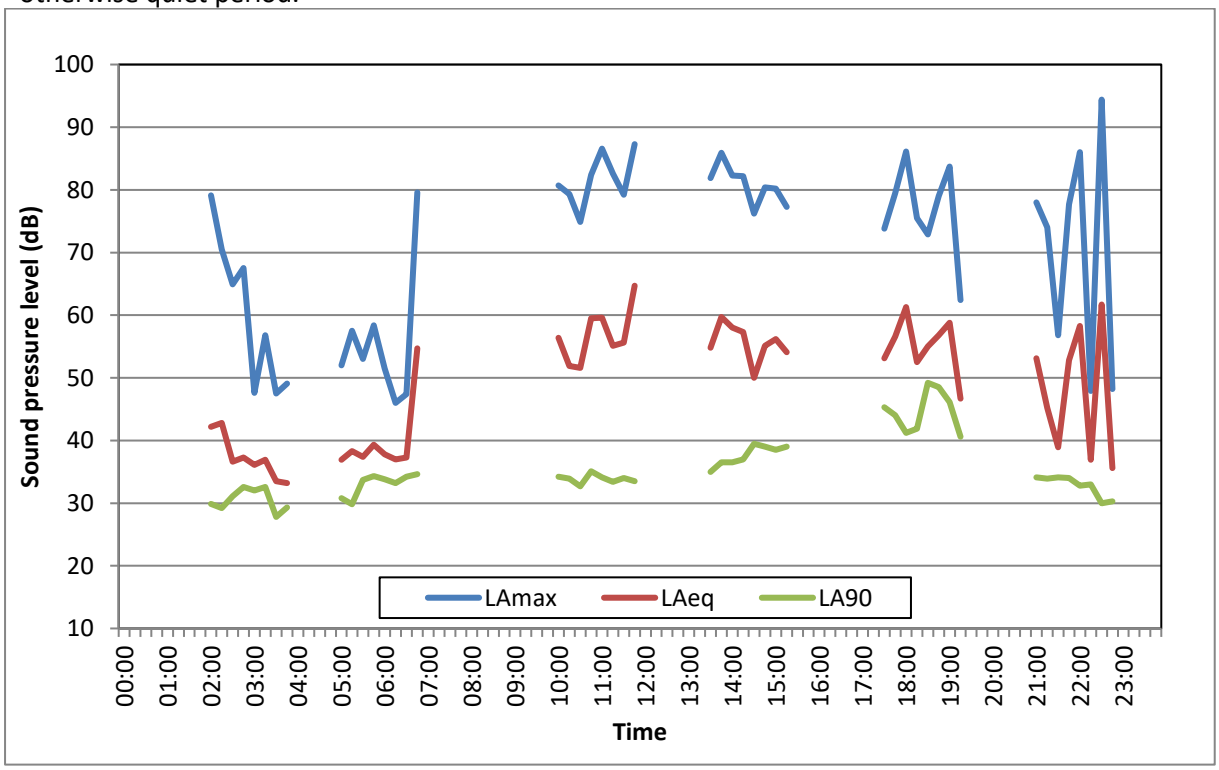
PRN1A – Willow Marsh Cottage (School Holidays)



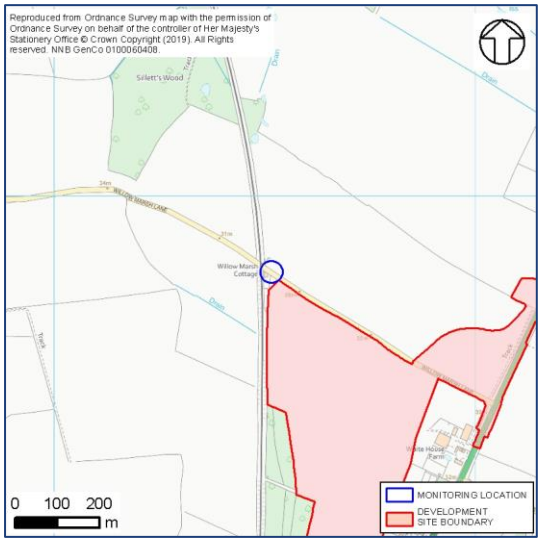
Site Description: Free-field location two metres from the edge of Willow Marsh Lane and opposite end of cottage.

Dates: 29 July, 5, 11 August 2014

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, occasional aircraft, occasional trains and birdsong from various species. Ambient sound levels were typically around 57dB during the day and 45dB during the night. Background sound levels were typically around 40dB during the day and 32dB during the night. The sound events happening between 21:00 and 23:00 are typical of occasional passing vehicles during an otherwise quiet period.



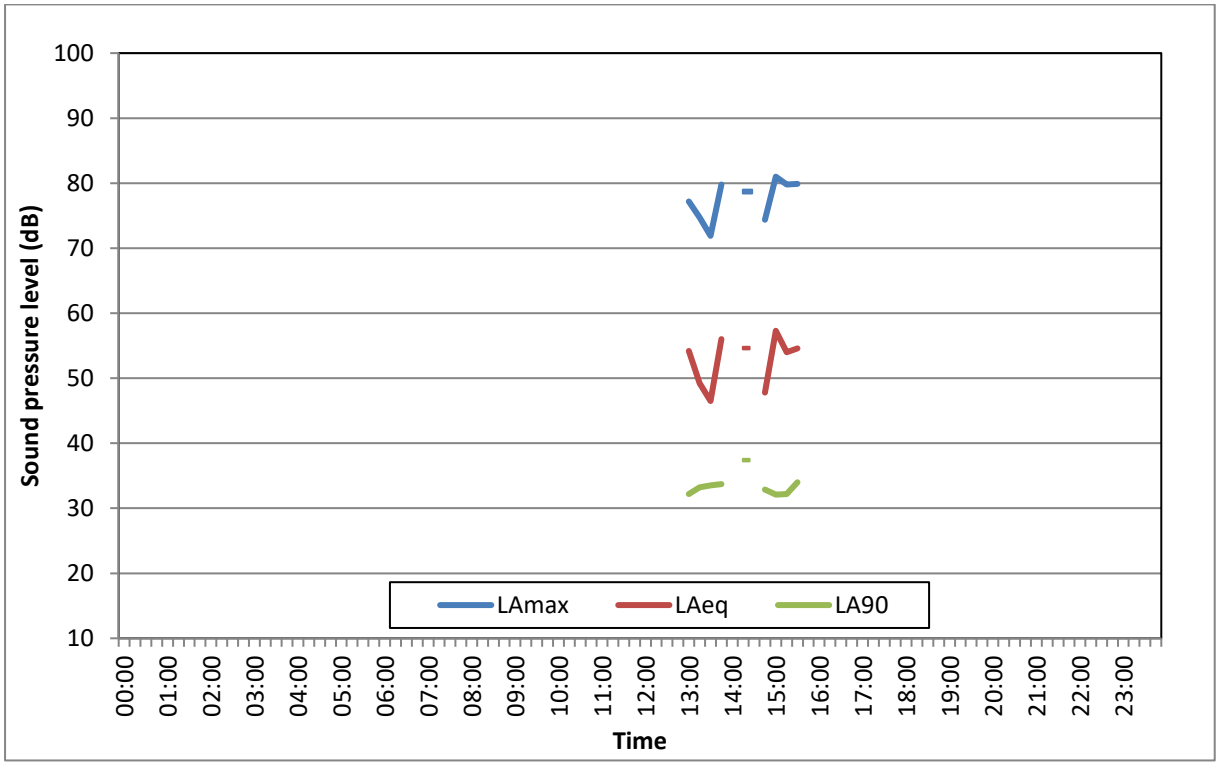
PRN1B – Willow Marsh Cottage (Term Time)



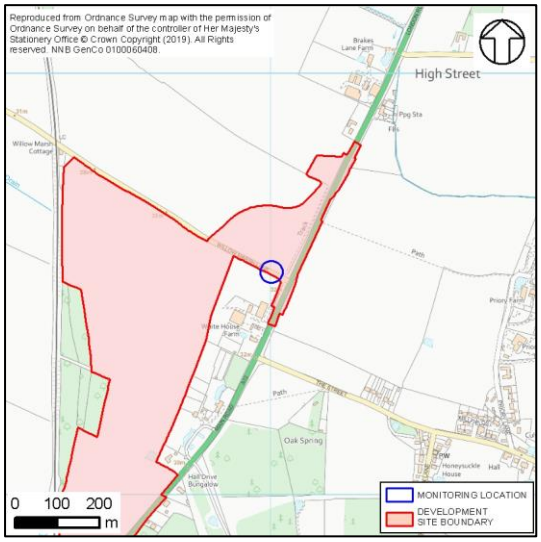
Site Description: Free-field location two metres from edge of Willow Marsh Lane and opposite end of cottage.

Date: 29 September 2014

Notes: This was a repeat survey during school term time. The sound climate was comprised of occasional local traffic, distant A12 road traffic, occasional trains and associated crossing alarms, and occasional aircraft. Ambient sound levels were typically around 55dB. Background sound levels were typically around 35dB.



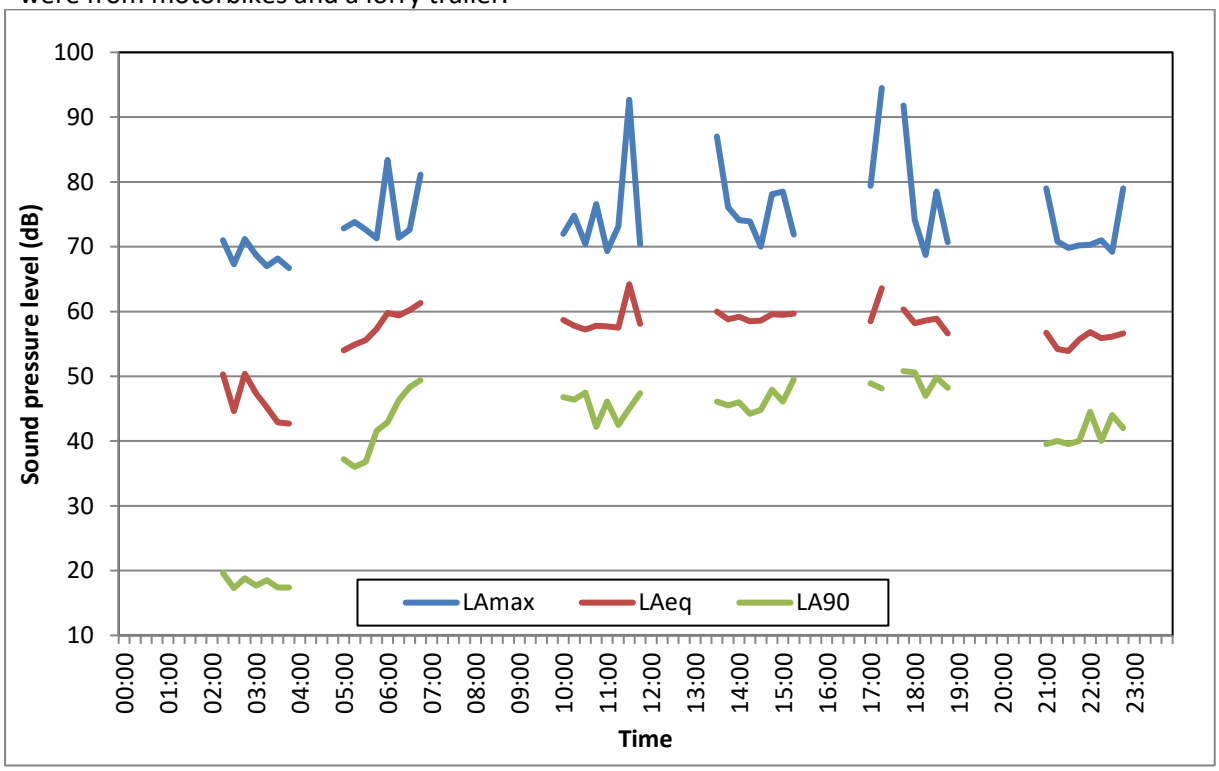
PRN2 – Willow Marsh Lane/A12 Junction



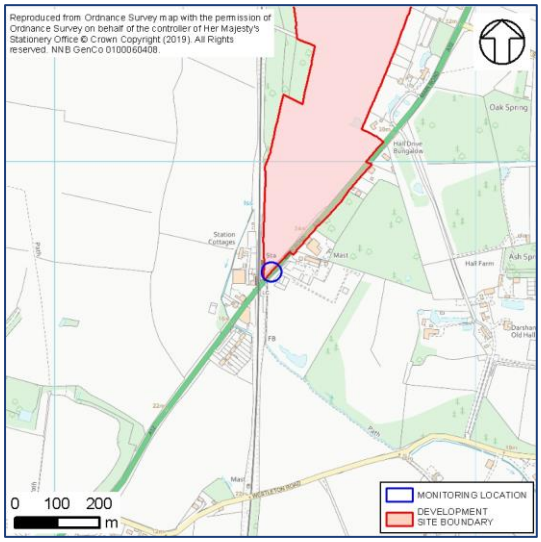
Site Description: Free-field location on grassy bank one metre from the edge of Willow Marsh Lane in site of A12 junction.

Dates: 1, 2, 3 October, 4, 12 November 2014

Notes: The sound climate was comprised of regular road traffic noise, occasional aircraft, birdsong from various species and occasional trains. This survey comprised six sets of two hour sound surveys conducted during day and night periods. Ambient sound levels were typically around 60dB during the day and 55dB or below during the night. Background sound levels were typically around 47dB during the day and fell below 20dB at times during the night. L_{Amax} events of around 93dB were from motorbikes and a lorry trailer.



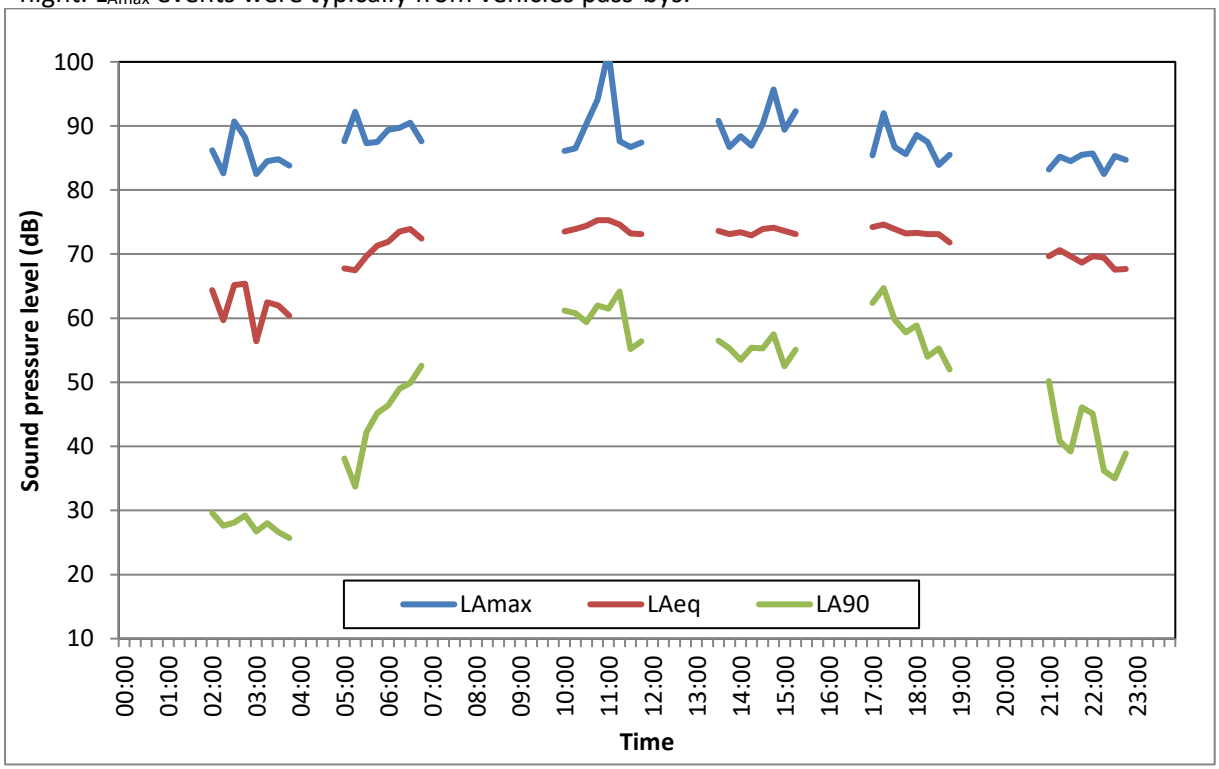
PRN3 – Darsham



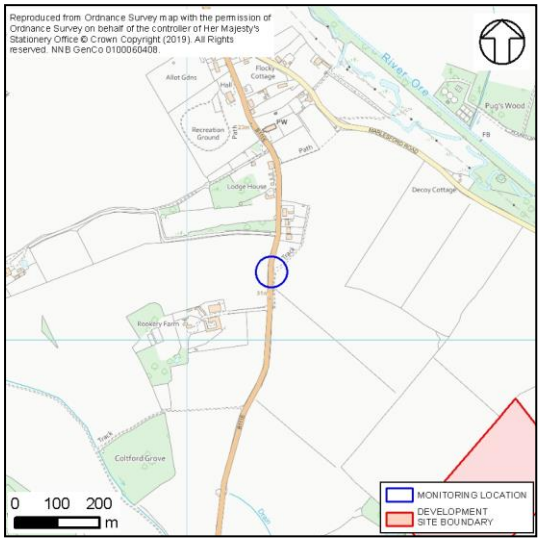
Site Description: Free-field location on grass verge two metres from the edge of the A12 and ten metres from Nursery entrance.

Dates: 30, 31 July, 1 August 2014

Notes: The sound climate was comprised of regular local road traffic noise, including heavy goods vehicles and cars, occasional trains, occasional aircraft, delivery related activities and birdsong from various species. Ambient sound levels were typically around 74dB during the day and 65dB during the night. Background sound levels were typically around 55dB during the day and 40dB during the night. L_{Amax} events were typically from vehicles pass-bys.



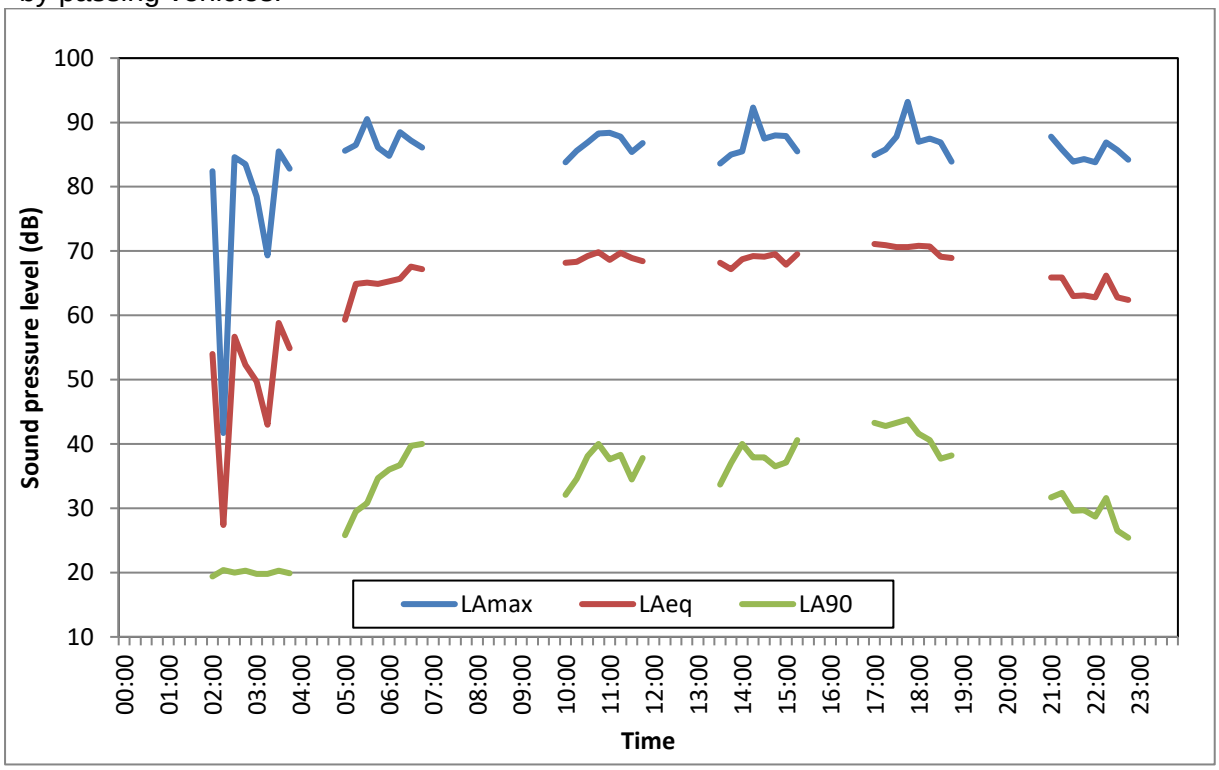
PRS1 – Hacheston



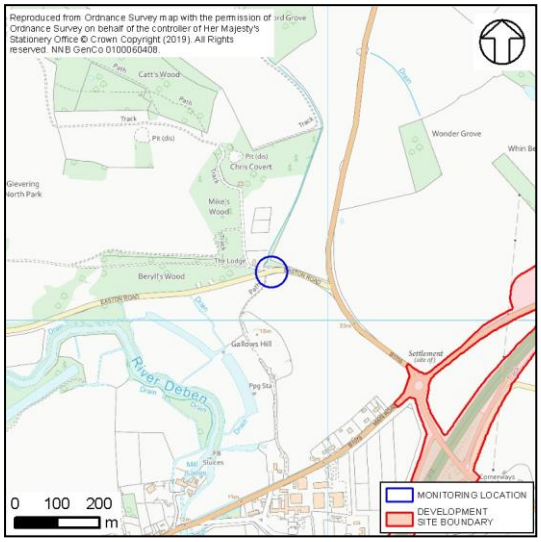
Site Description: Free-field location on grass verge of the B1116,1.5 metres from the edge of the road.

Date: 9, 10, 11, 12, 15 September 2014

Notes: The sound climate was comprised of occasional local road traffic including heavy goods vehicles and cars, occasional aircraft and birdsong from various species. Ambient sound levels were typically around 68dB during the day. Background sound levels were typically around 38dB during the day and 25dB during the night. L_{Amax} events were caused by passing vehicles.



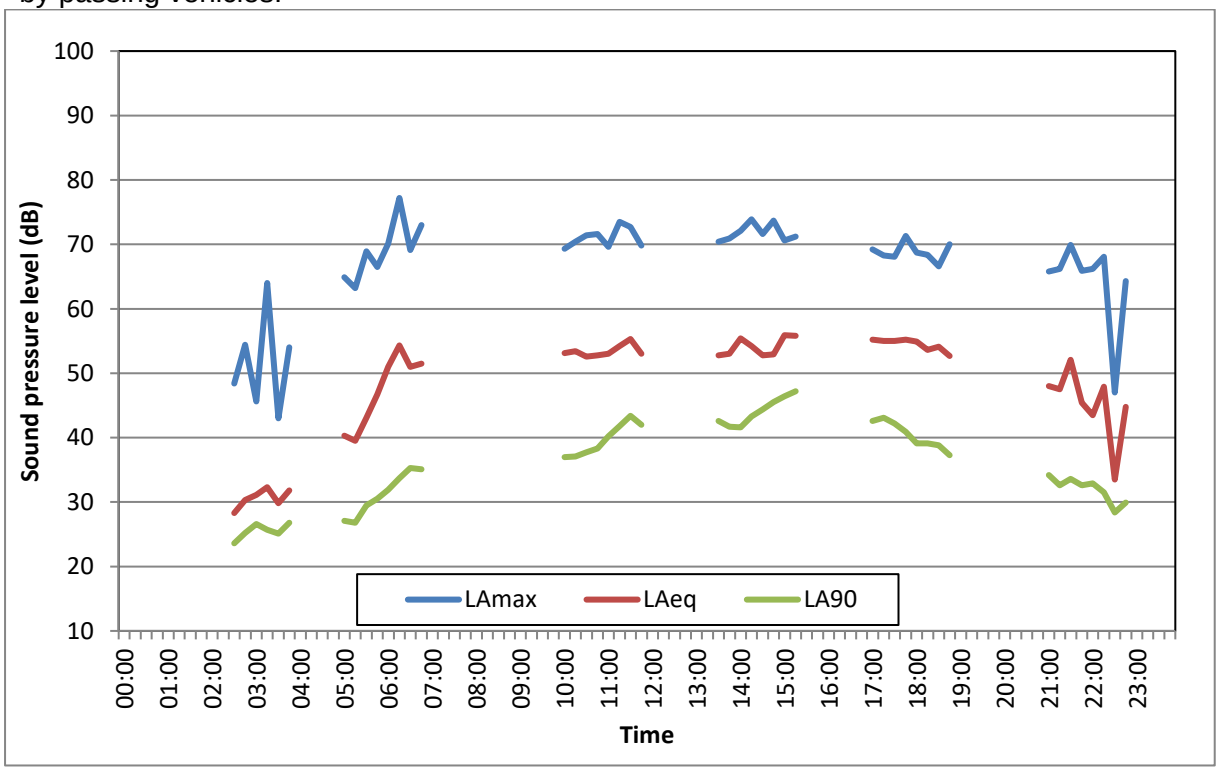
PRS2 – The Lodge, Lower Hacheston



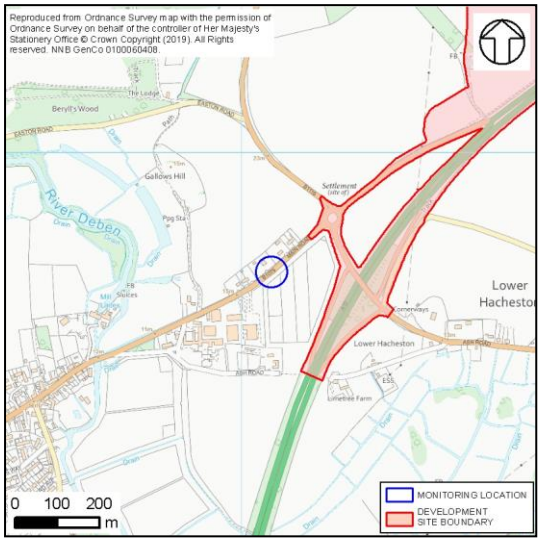
Site Description: Free-field location just in sight of dwelling. Ten metres from road, a bridleway and fields either side.

Date: 24, 25, 26 September, 6 November 2014

Notes: The sound climate was comprised of occasional local road traffic noise, distant road traffic noise from the A12, birdsong from various species, occasional aircraft, barking dogs, other animals and occasional activity at a local dwelling. Ambient sound levels were typically around 55dB during the day and 40dB during the night. Background sound levels were typically around 42dB during the day and 28dB during the night. L_{Amax} events were caused by passing vehicles.



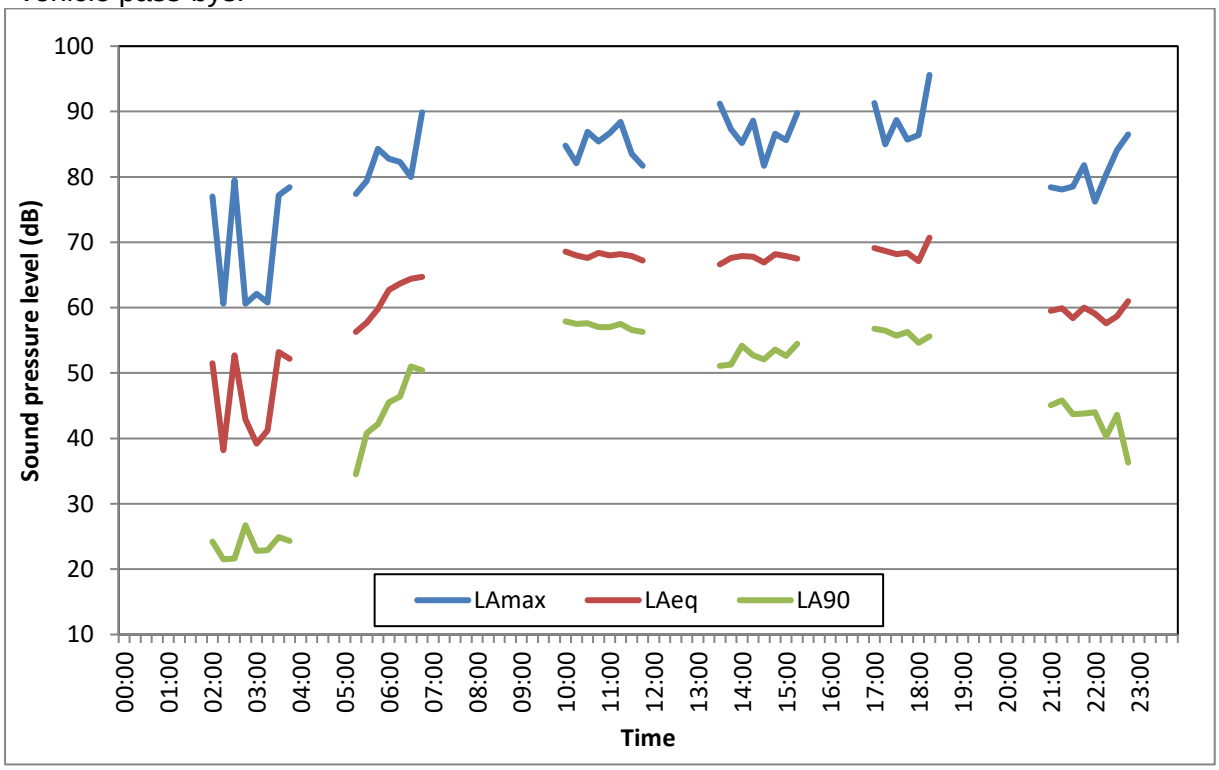
PRS3 – Ash View, Lower Hacheston



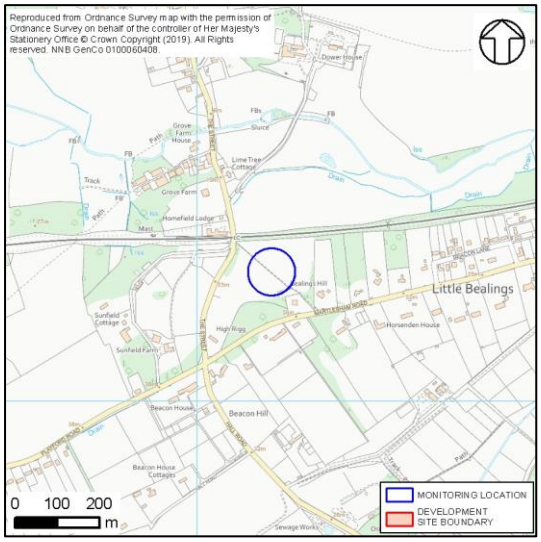
Site Description: Free-field location one metre from the edge of the B1078 road on grassy verge.

Dates: 25, 26 September, 27 October 2014

Notes: The sound climate in this location was comprised of regular local road traffic, distant road traffic from the A12, occasional trains, and aircraft. Ambient sound levels were typically around 68dB during the day. Background sound levels were typically around 55dB during the day and 35dB during the night. L_{Amax} events during the day and night were typically from vehicle pass-bys.



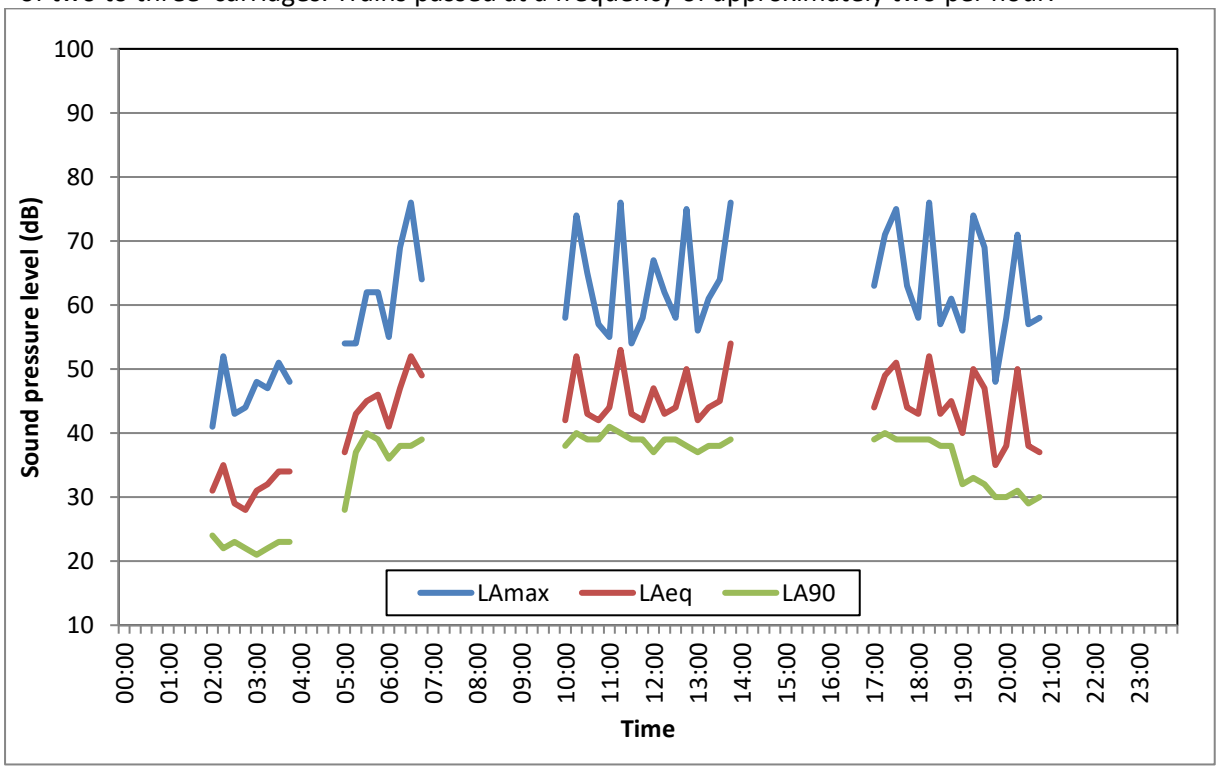
RR1 – Little Bealings



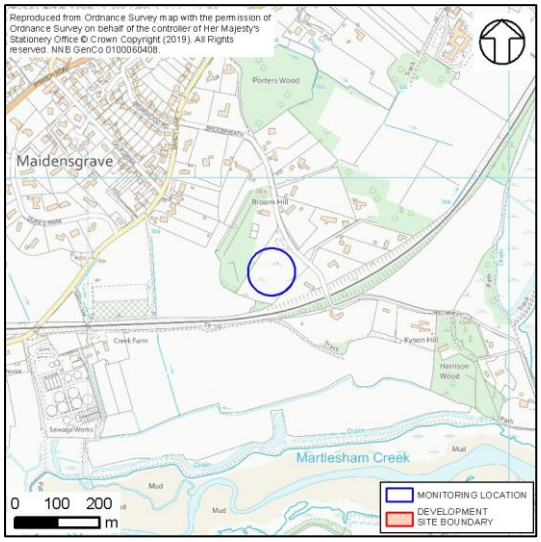
Site Description: Free field location on footpath in open field above Little Bealings old station.

Date: 13, 14 April, 1, 19 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, bird noises from various species, and occasional aircraft. Ambient sound levels were typically around 47dB during the day and 40dB at night. Background sound levels were typically around 38dB during the day and 30dB at night. Trains were typically passenger trains, comprised of two to three carriages. Trains passed at a frequency of approximately two per hour.



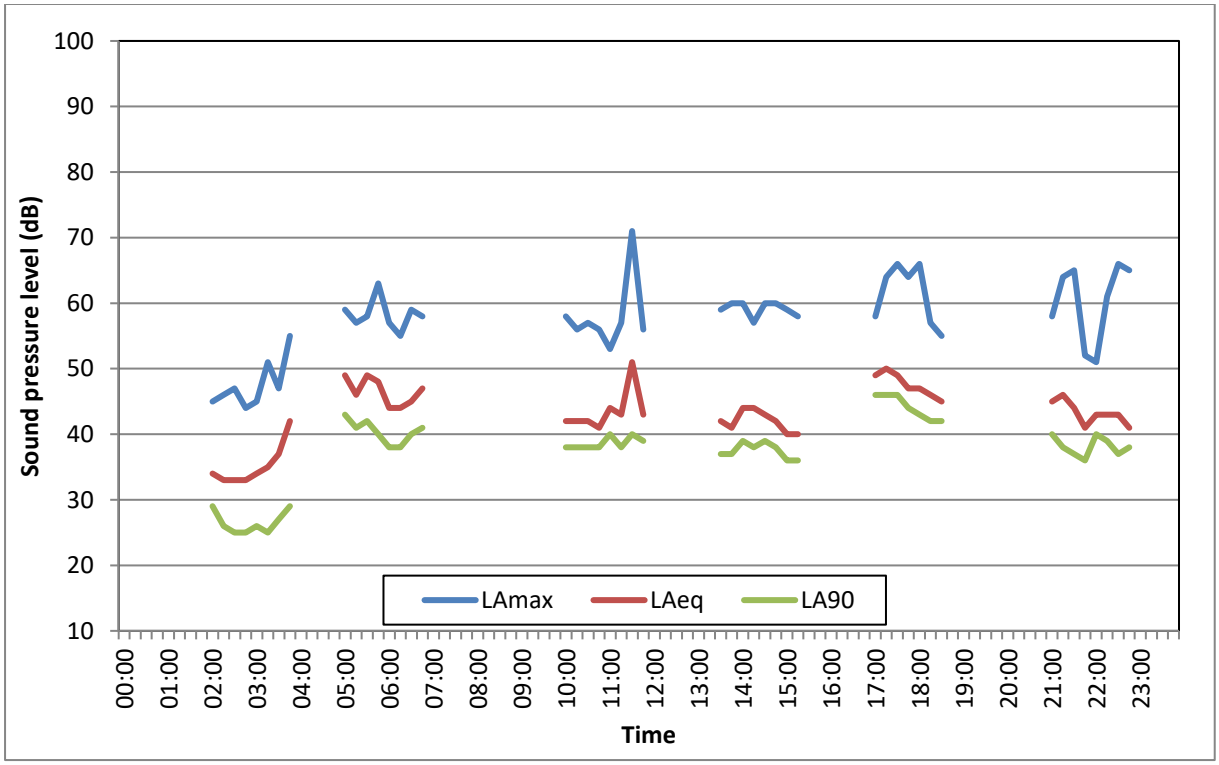
RR2 – Martlesham Creek



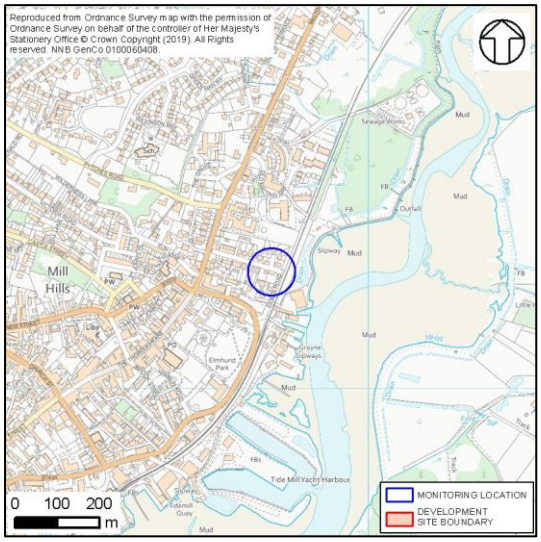
Site Description: Free field location on footpath in open field.

Date: 12, 15, 18, 27 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, bird noises from various species, and occasional aircraft. Ambient sound levels were typically around 48dB during the day and 40dB at night. Background sound levels were typically around 42dB during the day and 35dB at night. Trains were typically passenger trains, comprised of two to three carriages. Trains passed at a frequency of approximately two per hour.



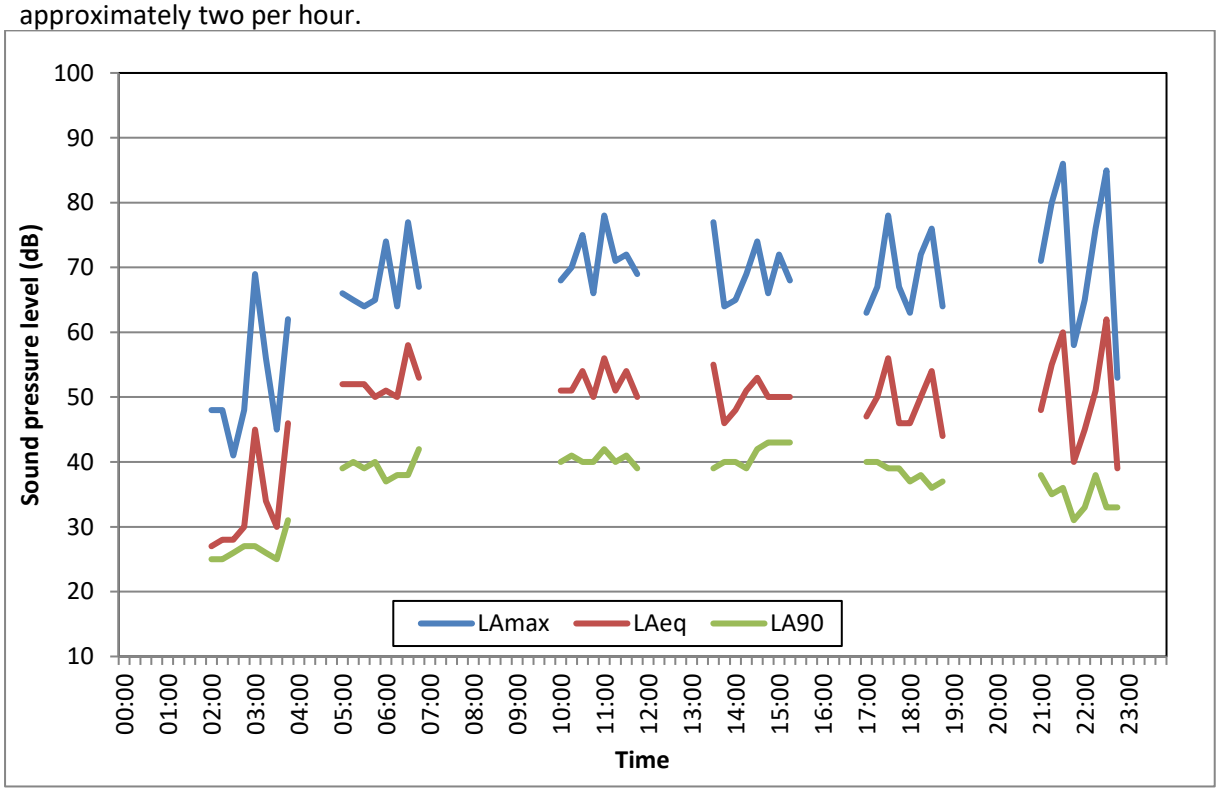
RR3 – Woodbridge, Deben Road



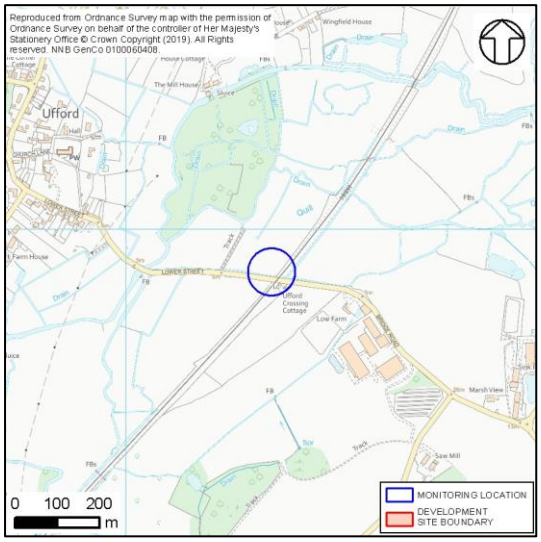
Site Description: Free Field location on Deben Road, Woodbridge

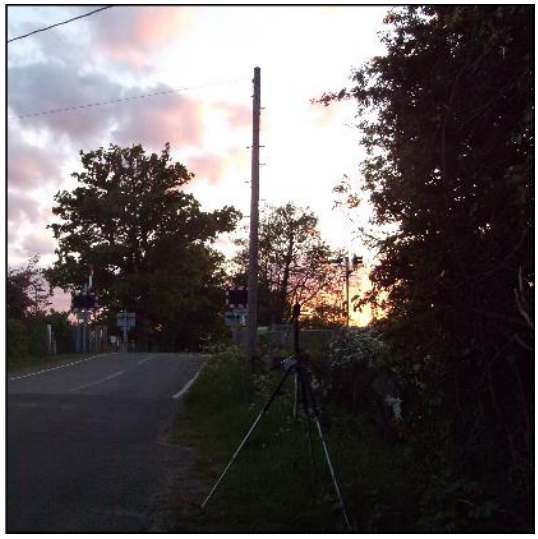
Dates: 7, 8, 19, 20 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, bird noises from various species, occasional residential activity and occasional aircraft. Ambient sound levels were typically around 50dB during the day and 40dB at night. Background sound levels were typically around 40dB during the day and 33dB at night. Trains were typically passenger trains, comprised of two to three carriages. Trains passed at a frequency of approximately two per hour.



RR4 – Bromeswell

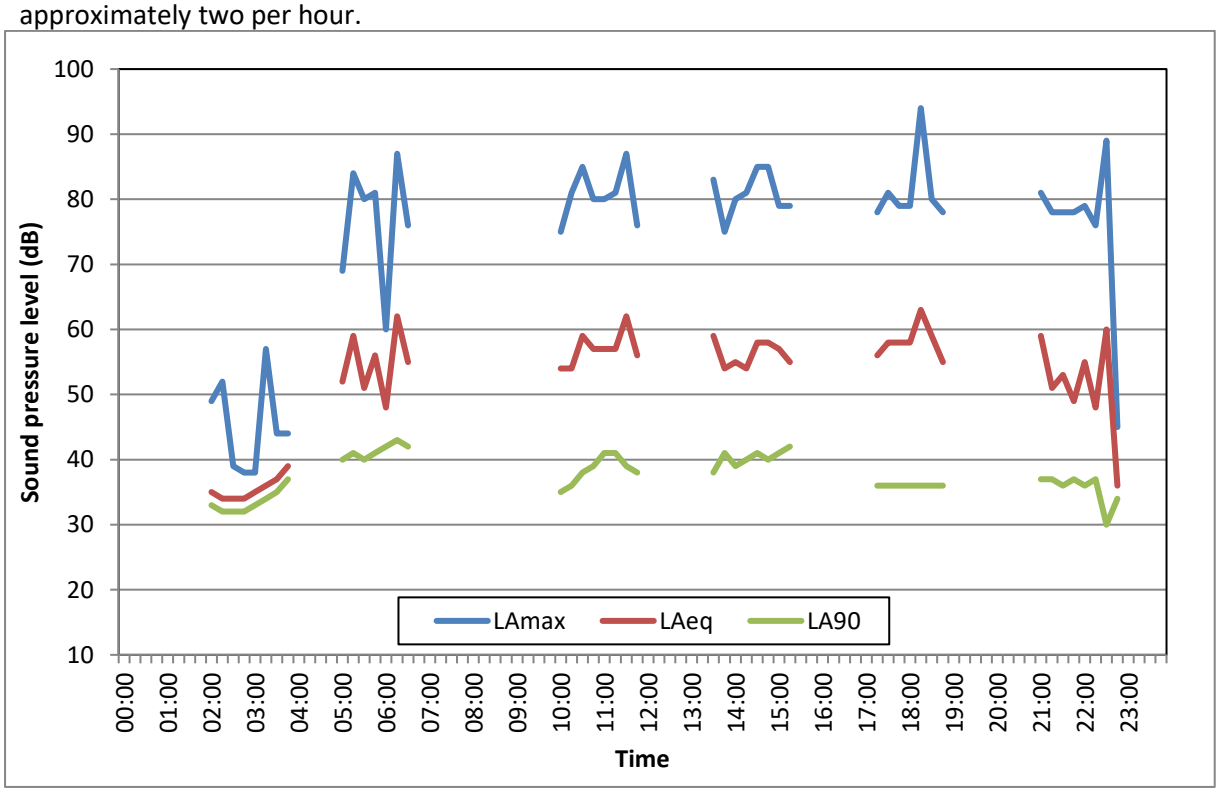




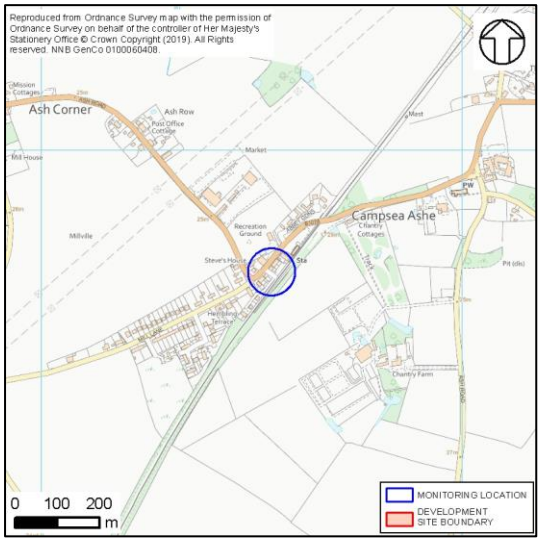
Site Description: Free field location 20 metres from rail crossing, one metre from kerb.

Dates: 8, 13, 28 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, bird noises from various species, occasional residential activity and occasional aircraft. Ambient sound levels were typically around 57dB during the day and 45dB at night. Background sound levels were typically around 40dB during the day and 37dB at night. Trains were typically passenger trains, comprised of two to three carriages. Trains passed at a frequency of approximately two per hour.



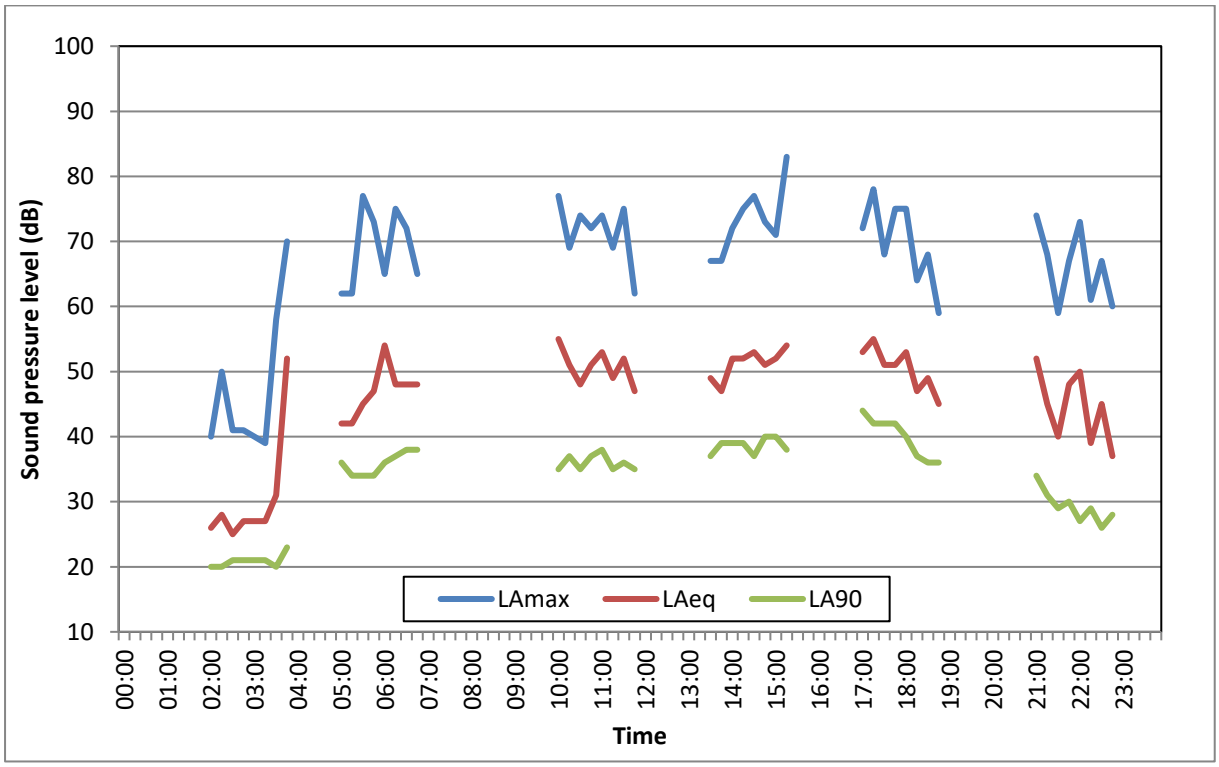
RR5 – Campsea Ashe



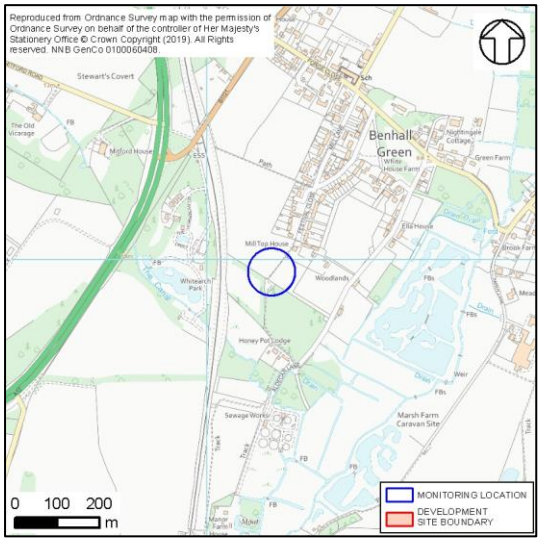
Site Description: Free field location on grassed area in Talbot Court.

Date: 1, 11, 18, 20, 26 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, bird noises from various species, occasional residential activity and occasional aircraft. Ambient sound levels were typically around 50dB during the day. Background sound levels were typically around 38dB during the day and below 30dB at night. Trains were typically passenger trains, comprised of two to three carriages. Trains passed at a frequency of approximately two per hour.



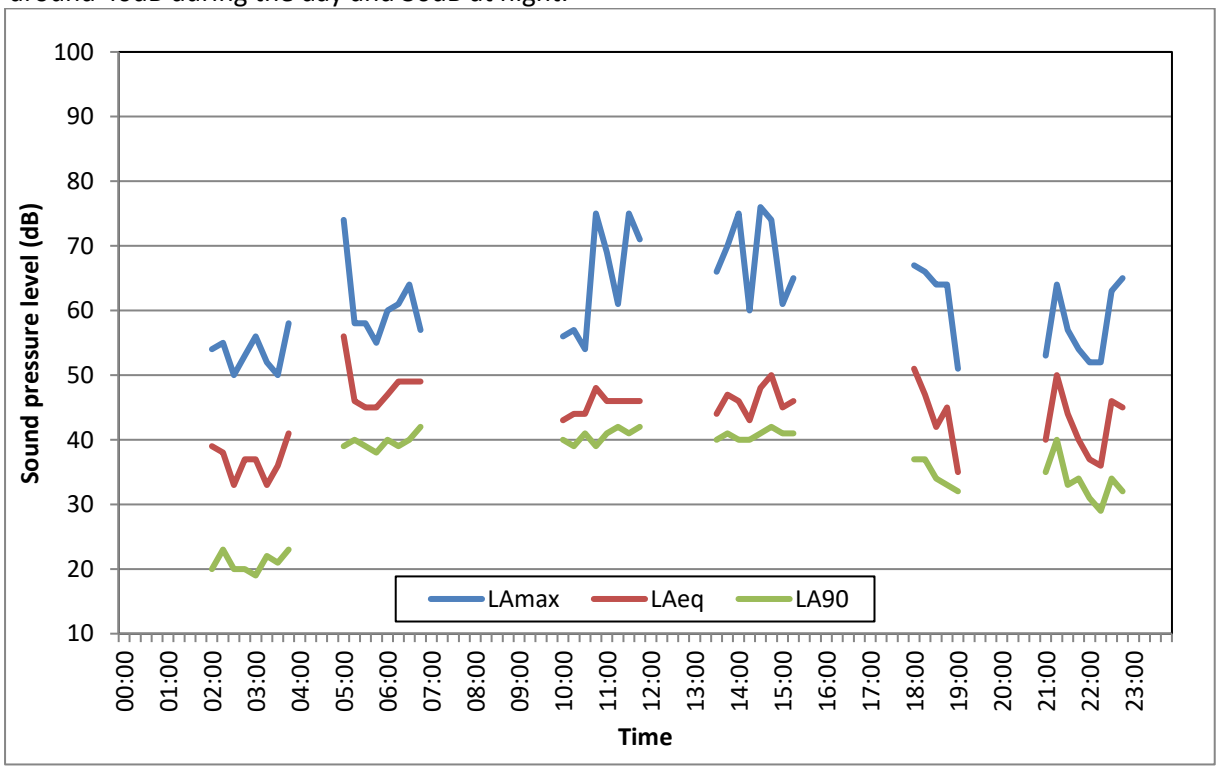
RR6 – Benhall



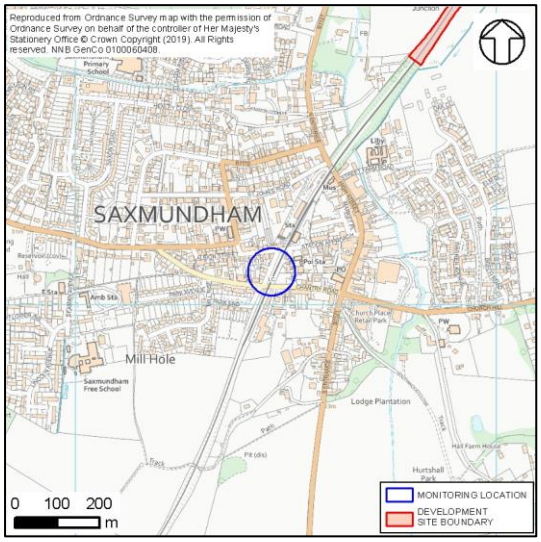
Site Description: Free field location along footpath, near the end of gardens at Benhall.

Date: 21, 24 April, 7 May 2015

Notes: The sound climate was comprised of distant road traffic noise from the A12, occasional local road traffic, barking dogs, shot guns, bird noises from various species, occasional residential activity and occasional aircraft. At this location train activity was just detectable. Ambient sound levels were typically around 47dB during the day and night. Background sound levels were typically around 40dB during the day and 30dB at night.



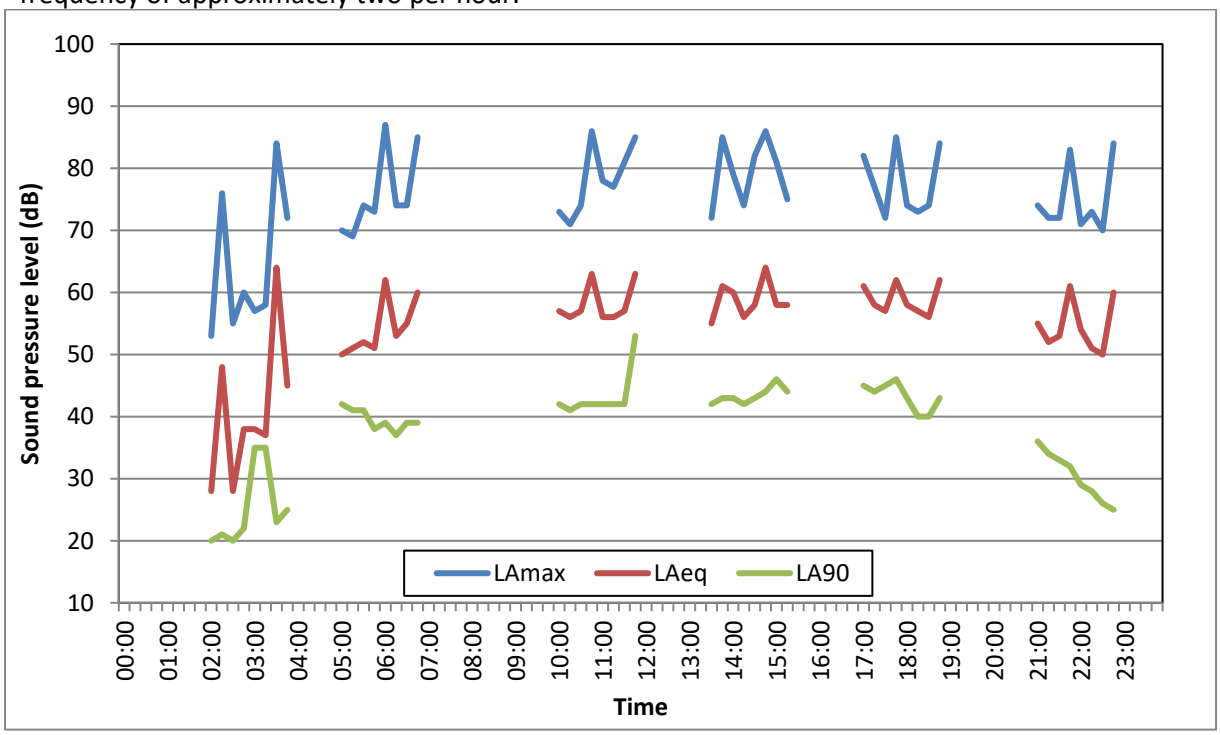
RR7 – Saxmundham, Alma Place



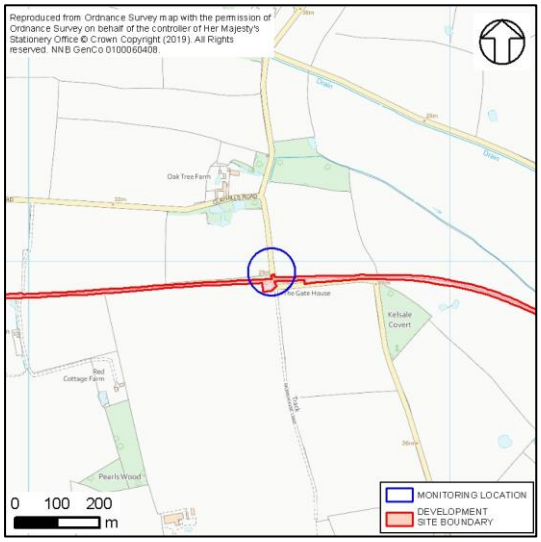
Site Description: Free field location at Alma Place, Saxmundham. Against chain link fence by railway track, approximately four metres to the near track.

Date: 20, 22 April, 20, 22 May, 8 June 2015

Notes: The sound climate was comprised of distant road traffic and regular local road traffic, including heavy goods vehicles, bird song from various species, occasional aircraft, light industrial activity, and occasional residential activity. Ambient sound levels were typically around 58dB during the day. Background sound levels were typically around 44dB during the day and 30dB during the night. Trains were typically passenger trains, comprising of two to three carriages; however there were occasional freight trains during the early morning. Trains passed at a frequency of approximately two per hour.



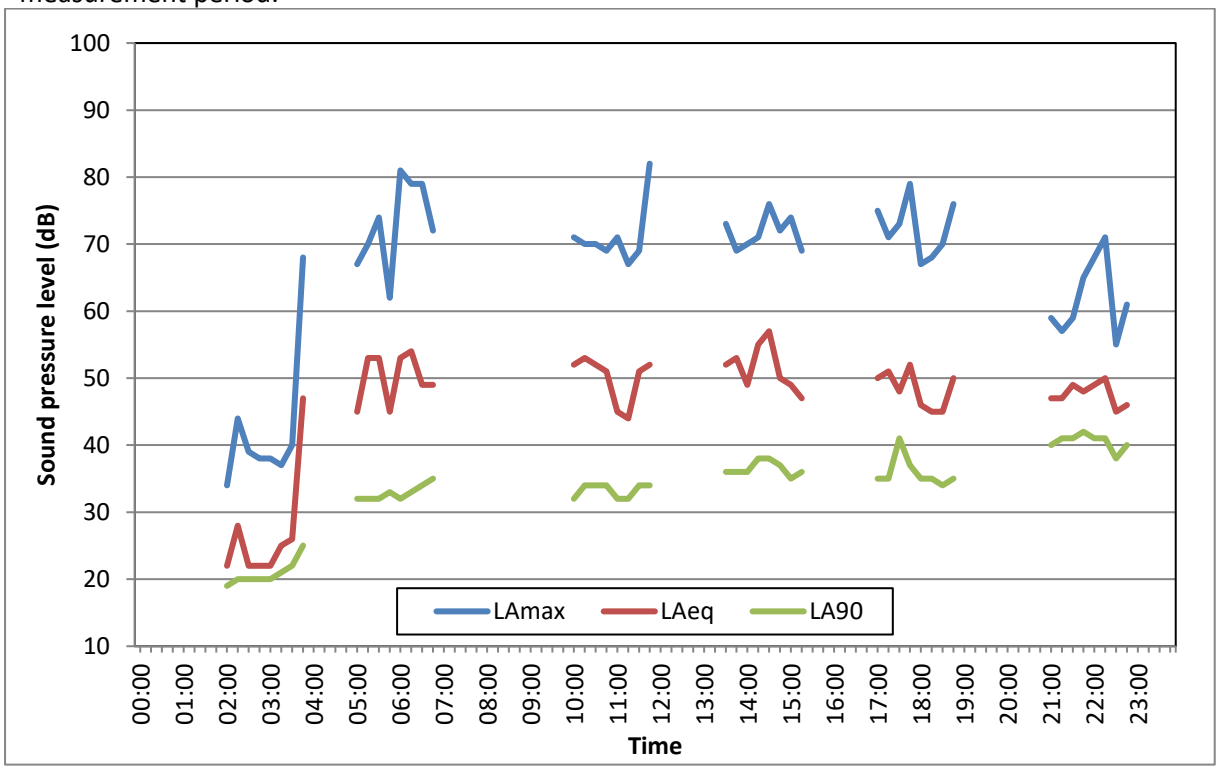
RR8 – Clay Hills



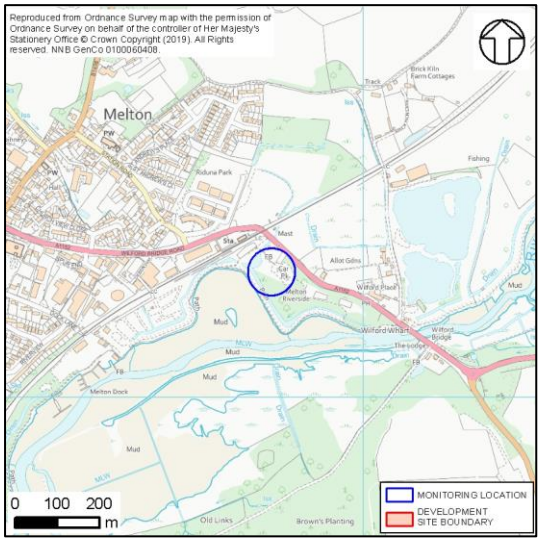
Site Description: Free field location in Clays Hills, on Red House Lane, approximately four metres from the track edge.

Date: 21, 22 May, 2 June 2015

Notes: The sound climate was comprised of distant road traffic, occasional local road traffic, including heavy goods vehicles, cars, and vans, bird song from various species, shot guns, bird-scarers, occasional aircraft and dogs barking. Ambient sound levels were typically around 50dB during the day. Background sound levels were typically around 38dB during the day and 31dB during the night but dropping below this level at times. No trains passed on the track during the measurement period.

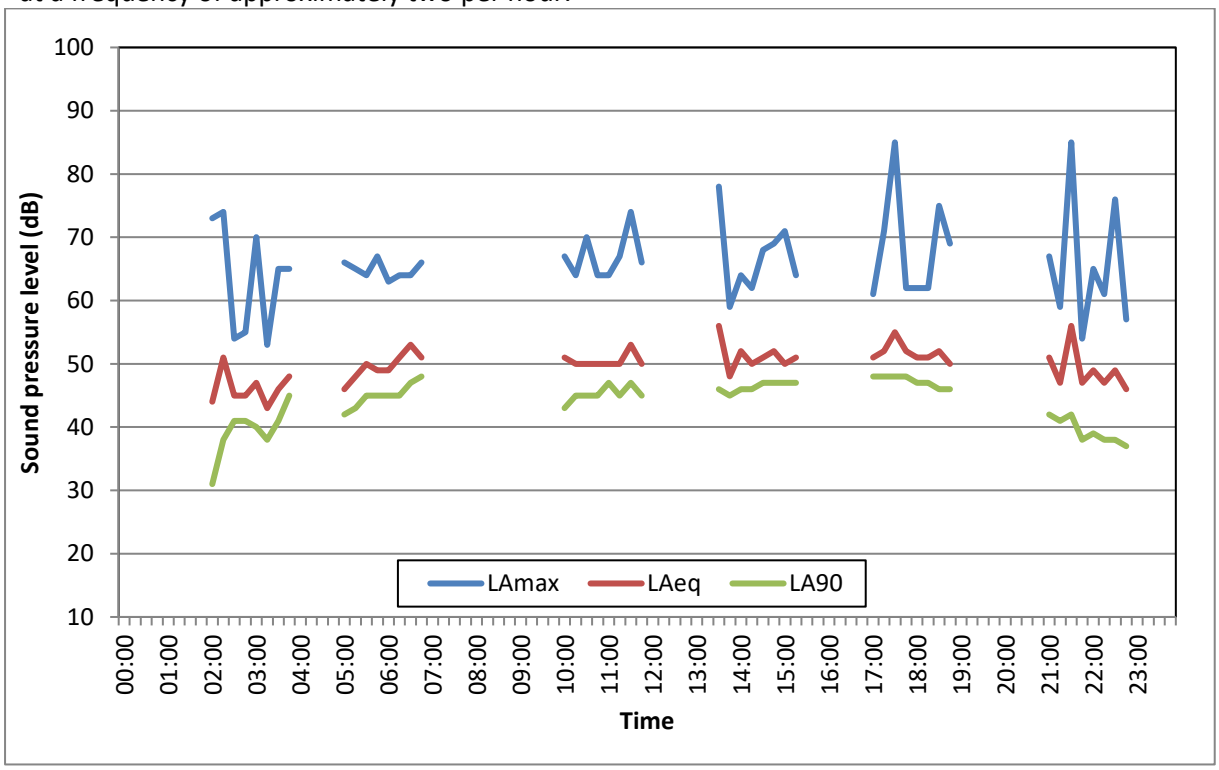


RR9 – Melton

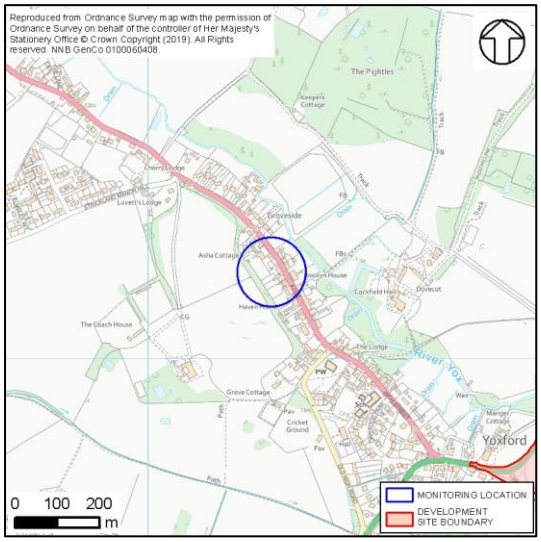


Site Description: Free field location, on edge of river in Melton. **Date:** 22, 26, 27 May 2015

Notes: The sound climate was comprised of distant road traffic, occasional local road traffic, including cars and tractors, bird song from various species and occasional light industrial activity. Ambient sound levels were typically around 51dB during the day and 48dB during the night. Background sound levels were typically around 47dB during the day and 41dB during the night with levels dropping below this for some periods. Trains were heard passing the measurement location at a frequency of approximately two per hour.

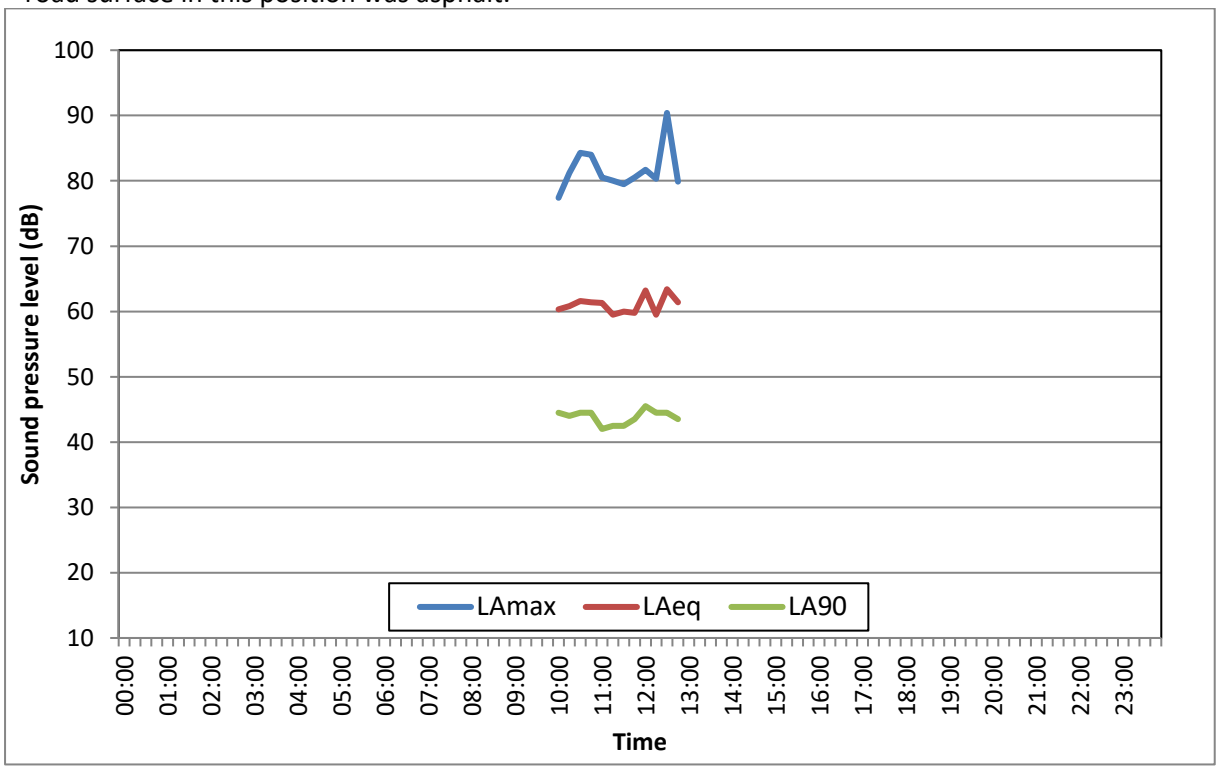


RT1 – A1120 Yoxford High Street

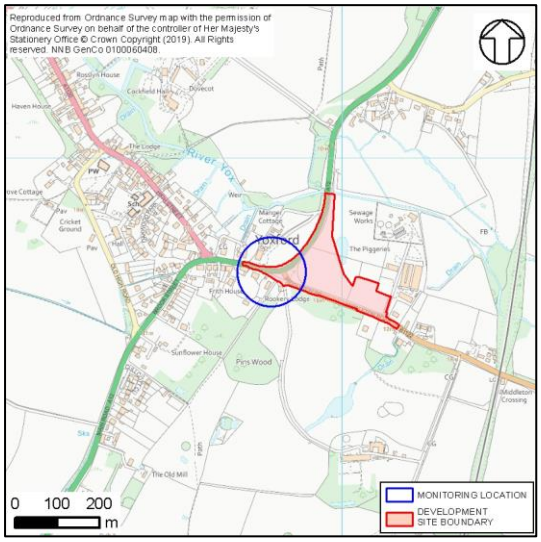


Site Description: Free-field location 2.5 metres from edge of kerb along Yoxford High Street. **Date:** 23 July 2014

Notes: The sound climate was comprised of regular local road traffic including heavy goods vehicles, buses and cars, occasional activity in gardens and noises from a local school. Ambient sound levels were typically around 62dB. Background sound levels were typically around 45dB. L_{Amax} events up to 90dB were typically from HGV's on carriageway closest to meter position. The road surface in this position was asphalt.

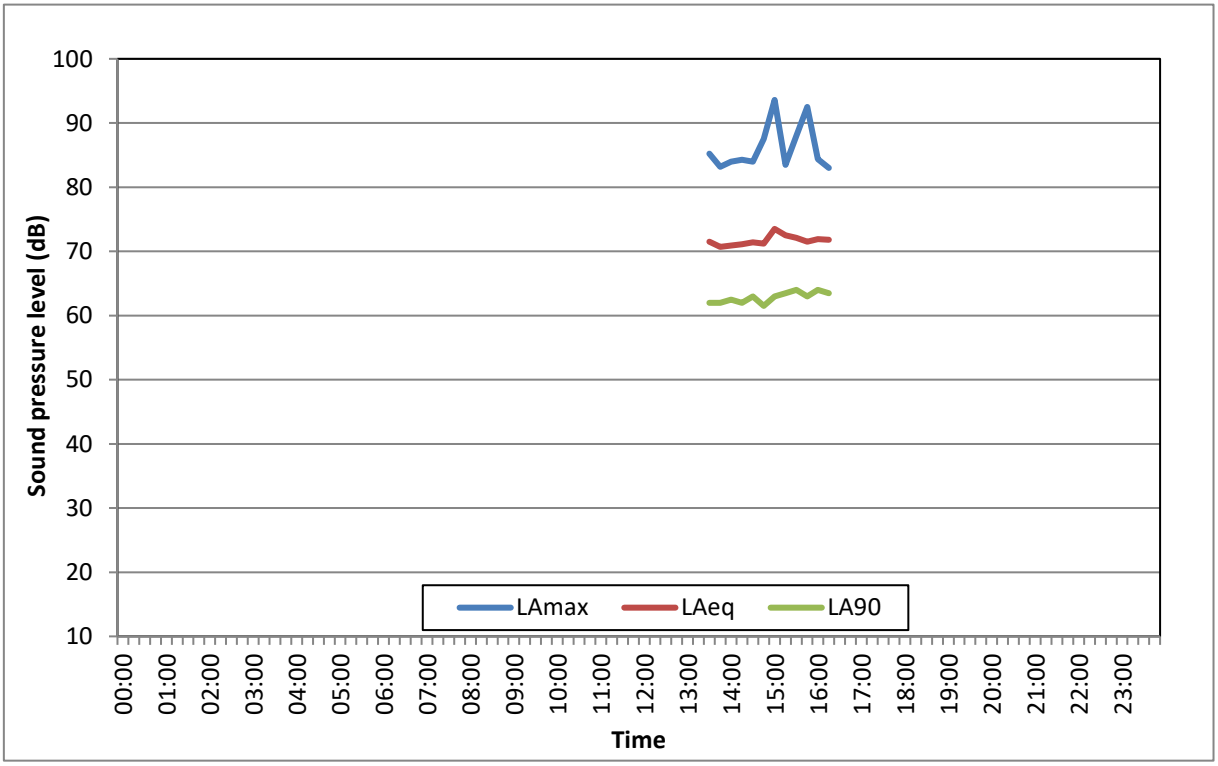


RT2 – Yoxford Junction

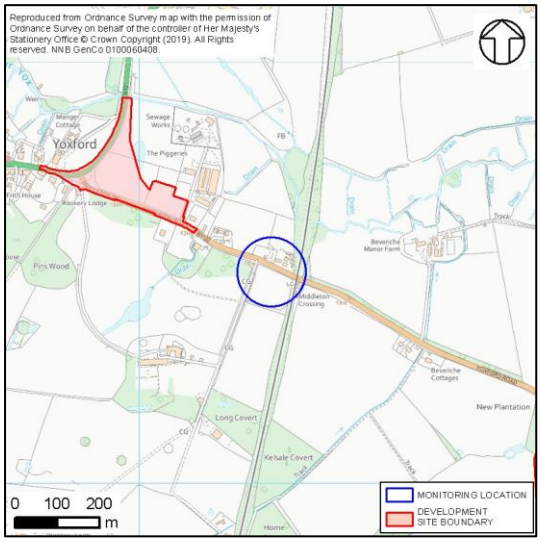


Site Description: Free-field location two metres from edge of kerb at junction of A12 and B1122 roads. **Date:** 23 July 2014

Notes: The sound climate was comprised of regular local road traffic, including heavy goods vehicles, buses, cars and farm vehicles. Regular traffic on A12 dominant, only occasional traffic on B1122. Ambient sound levels were around 72dB. Background sound levels were around 63dB. L_{Amax} events caused by vehicle pass-bys, brake squeal, metallic clanks from trailers and similar. The road surface in this location was asphalt.



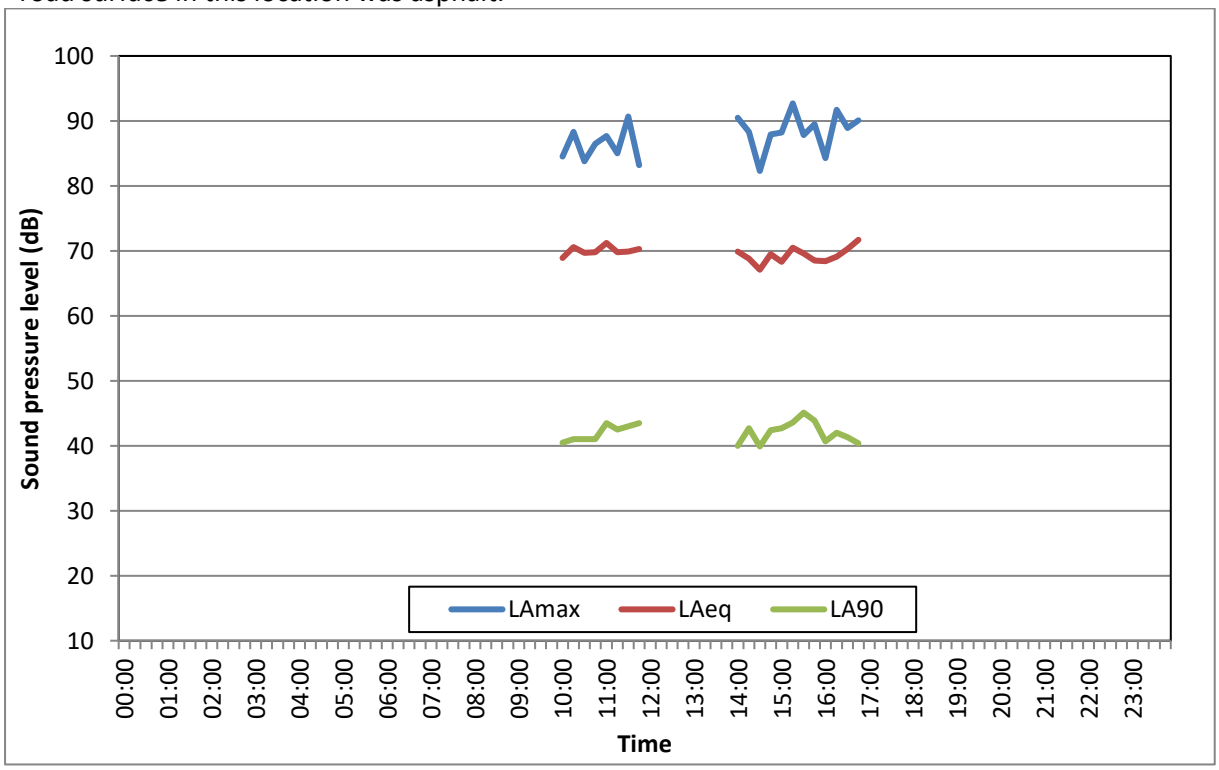
RT3 – B1122 Middleton Moor



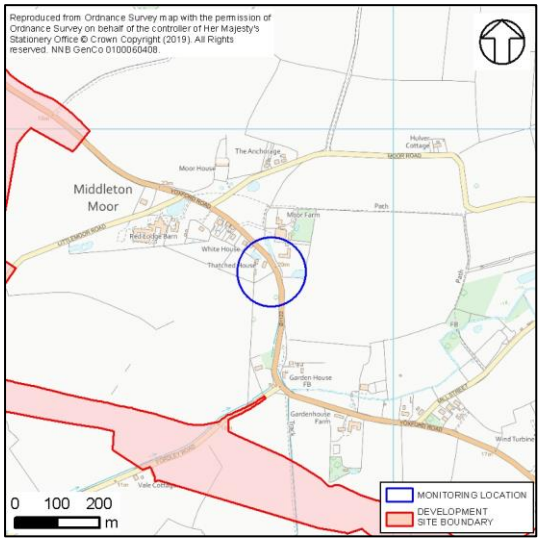
Site Description: Free-field location one metre from edge of kerb and five metres from railway track barriers.

Dates: 28 July, 20 August 2014, 5 June 2019

Notes: The sound climate was comprised of regular local road traffic, including heavy goods vehicles, campervans, cars and farm vehicles, occasional trains and a railway crossing alarm, and occasional garden and DIY activity. Ambient sound levels were typically around 70dB. Background sound levels were typically around 43dB. L_{Amax} events were caused from vehicles passing by. The road surface in this location was asphalt.



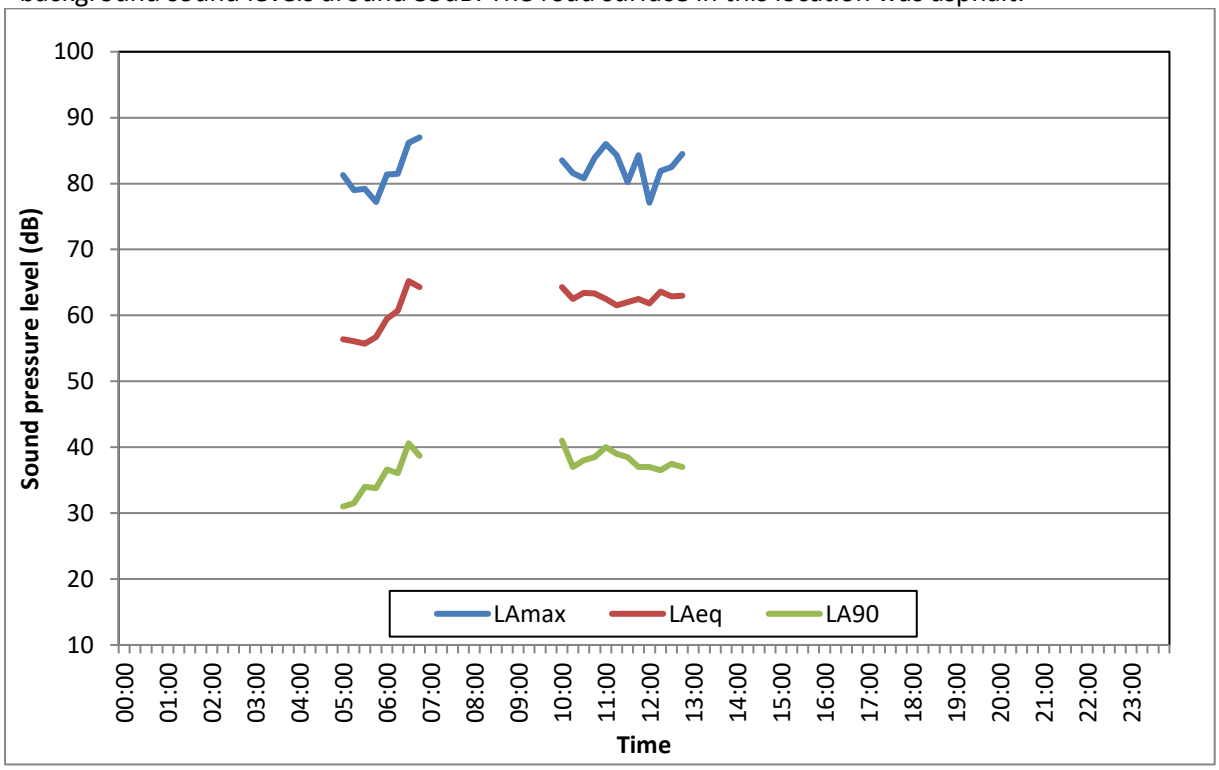
RT4 – B1122 Middleton



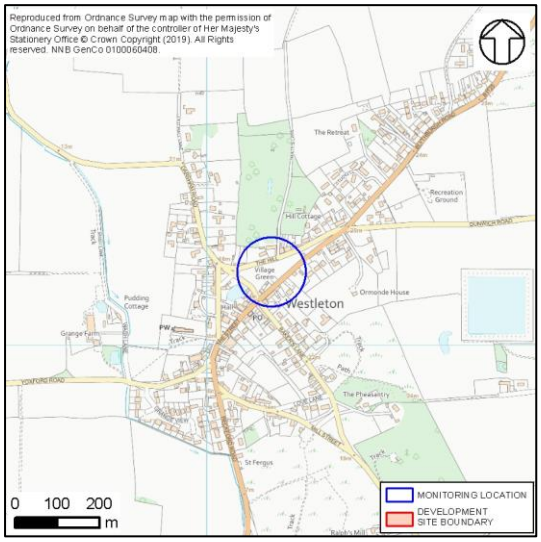
Site Description: Free-field location three metres from edge of kerb of the B1122 and three metres from a farm track.

Dates: 25 July, 19 August 2014, 5 June 2019

Notes: The sound climate was comprised of regular local road traffic noise, including heavy goods vehicles, cars and farm vehicles, occasional aircraft and bird song from various species during quieter periods. During the day, ambient sound levels were typically around 63dB and background sound levels around 38dB. During the night, ambient sound levels were typically around 60dB and background sound levels around 35dB. The road surface in this location was asphalt.



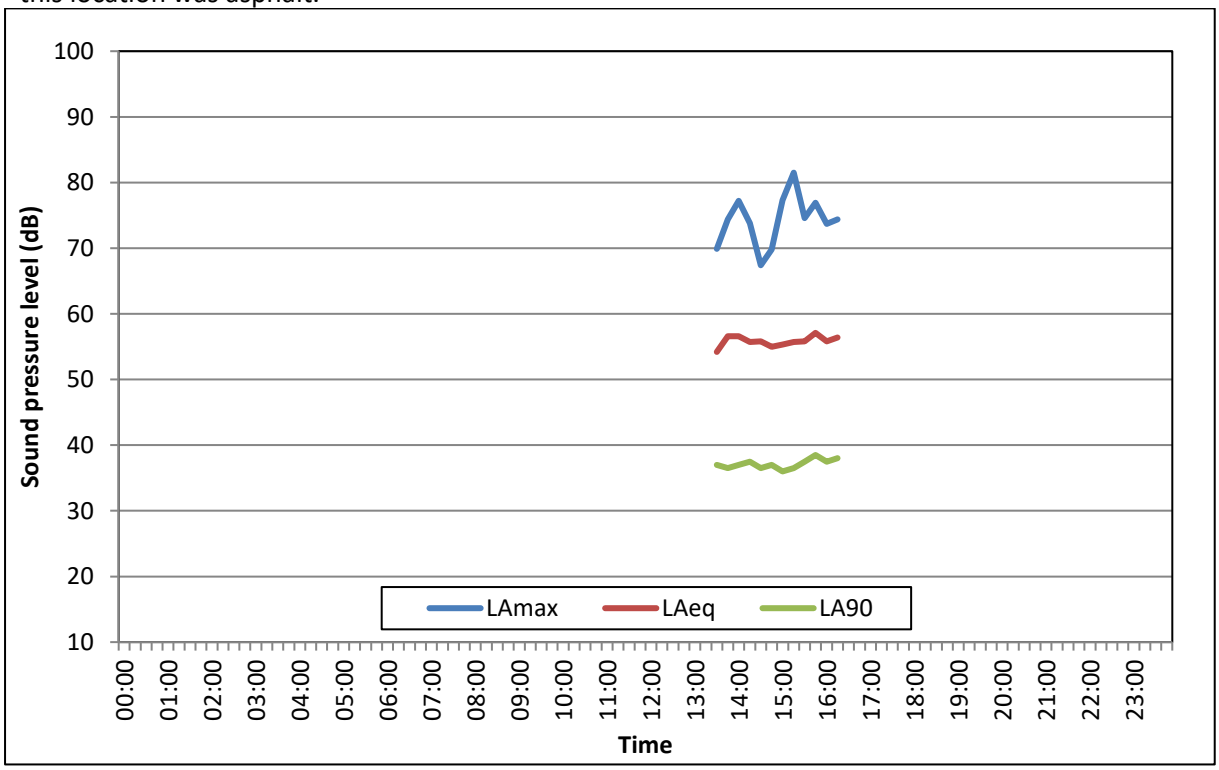
RT5 – Westleton



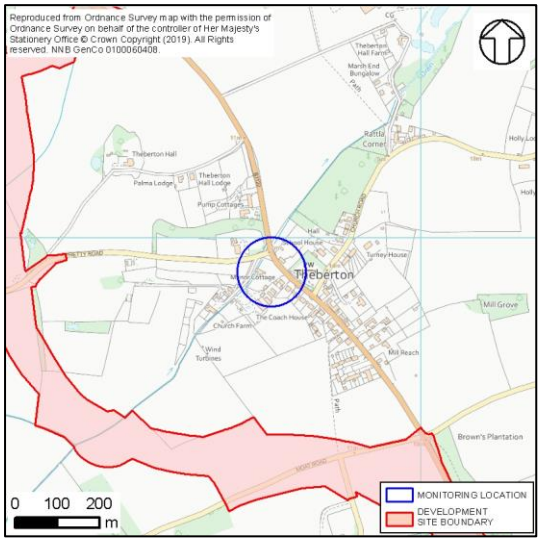
Site Description: Free-field location on Westleton Green, ten metres from edge of road. Opposite Fairway Cottage.

Date: 15 July 2014

Notes: The sound climate was comprised of regular road traffic noise, occasional aircraft, birdsong from various species and various residential activities including DIY. Ambient sound levels were typically around 56dB. Background sound levels were typically around 37dB. The road surface in this location was asphalt.



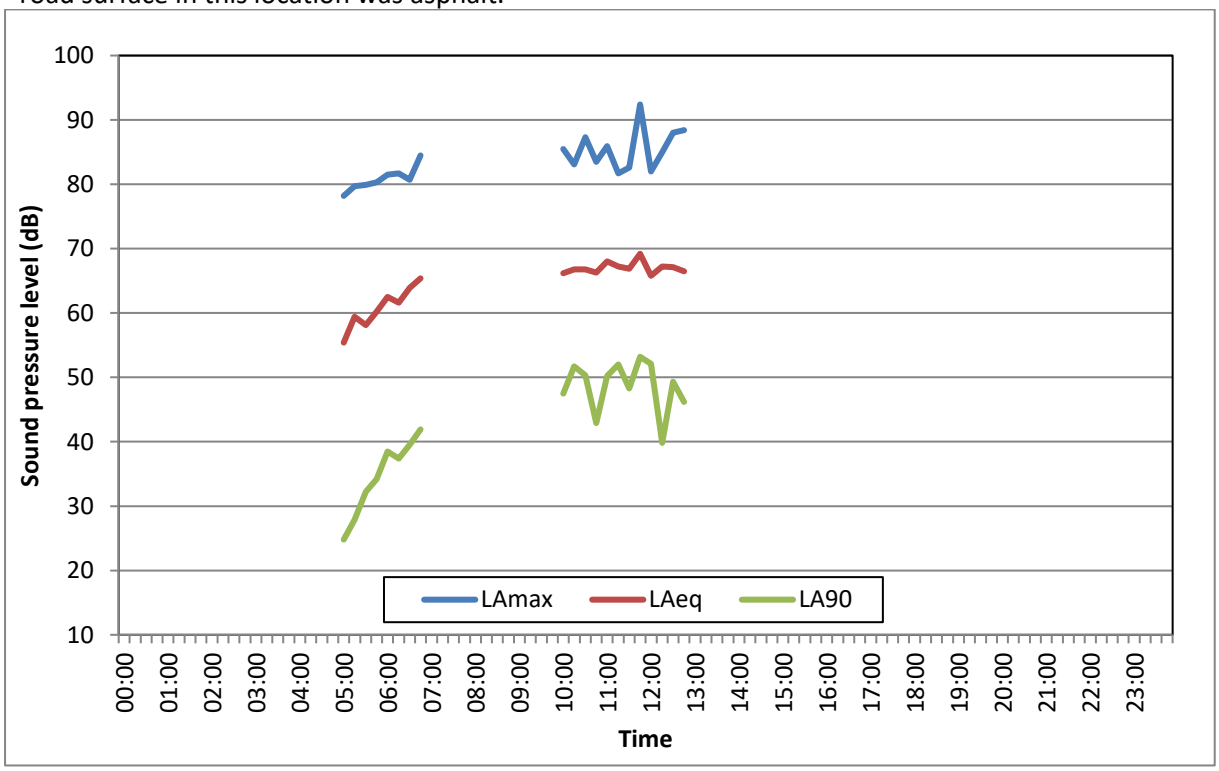
RT6 – Theberton



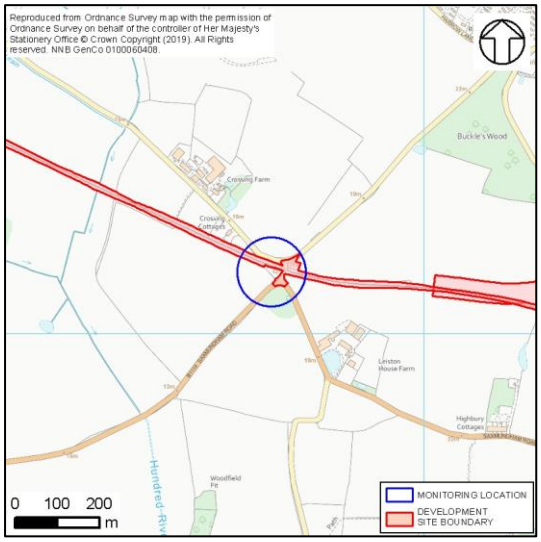
Site Description: Free-field location on grass verge near junction with Pretty Road, two metres from the edge of Leiston road.

Date: 20 August 2014, 20 May 2019

Notes: The sound climate was comprised of local road traffic, including heavy goods vehicles and cars, which increased as the morning progressed, bird song from various species and other animal sounds including cows. During the day, ambient sound levels were typically around 67dB and background sound levels around 50dB. During the night, ambient sound levels were typically around 62dB and background sound levels around 35dB. L_{Amax} events from vehicle pass-bys. The road surface in this location was asphalt.



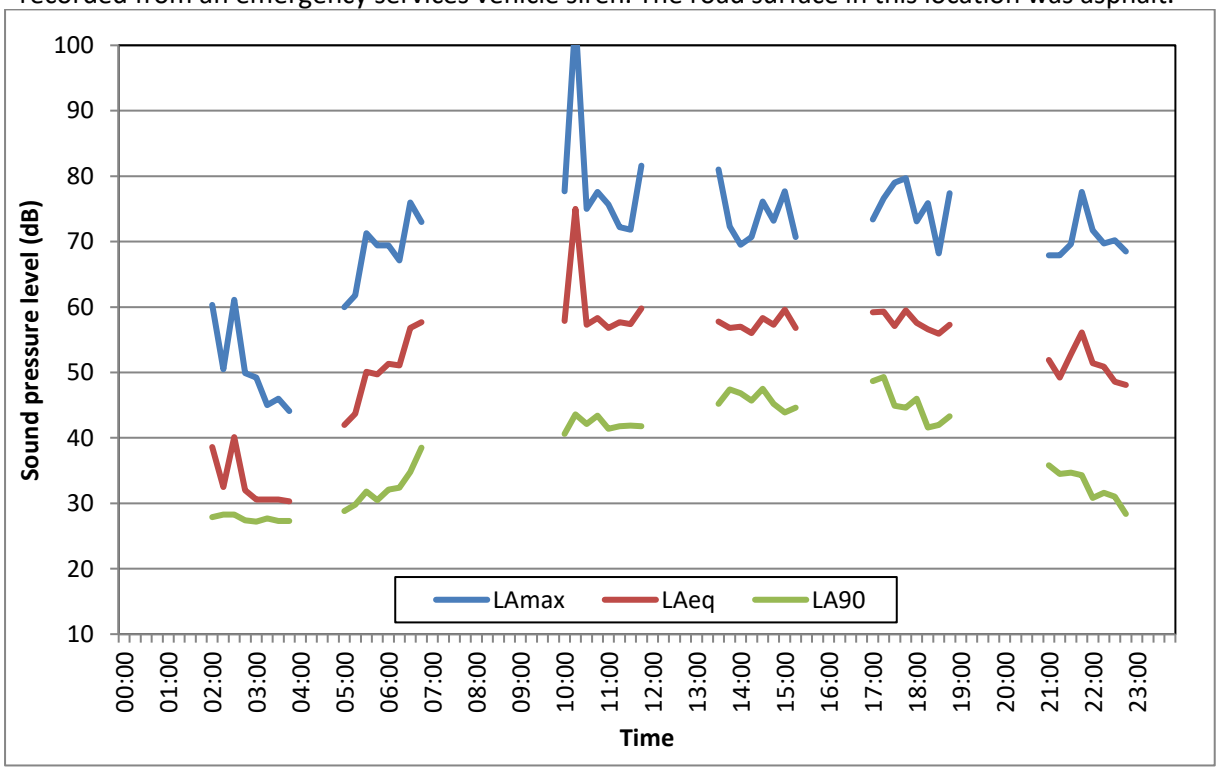
RT7 – Gatehouse, Saxmundham Road



Site Description: Free-field location on grass verge four metres from edge of Crossing Lane, and seven metres from edge of Saxmundham Road.

Date: 26, 27, 28 August 2014

Notes: The sound climate was comprised of distant and local road traffic, including tractors, occasional aircraft, birdsong from various species, and fox calling. Ambient sound levels were typically around 59dB during the day and 45dB during the night. Background sound levels were typically around 45dB during the day and 30dB during the night. A sound level of 100dB was recorded from an emergency services vehicle siren. The road surface in this location was asphalt.

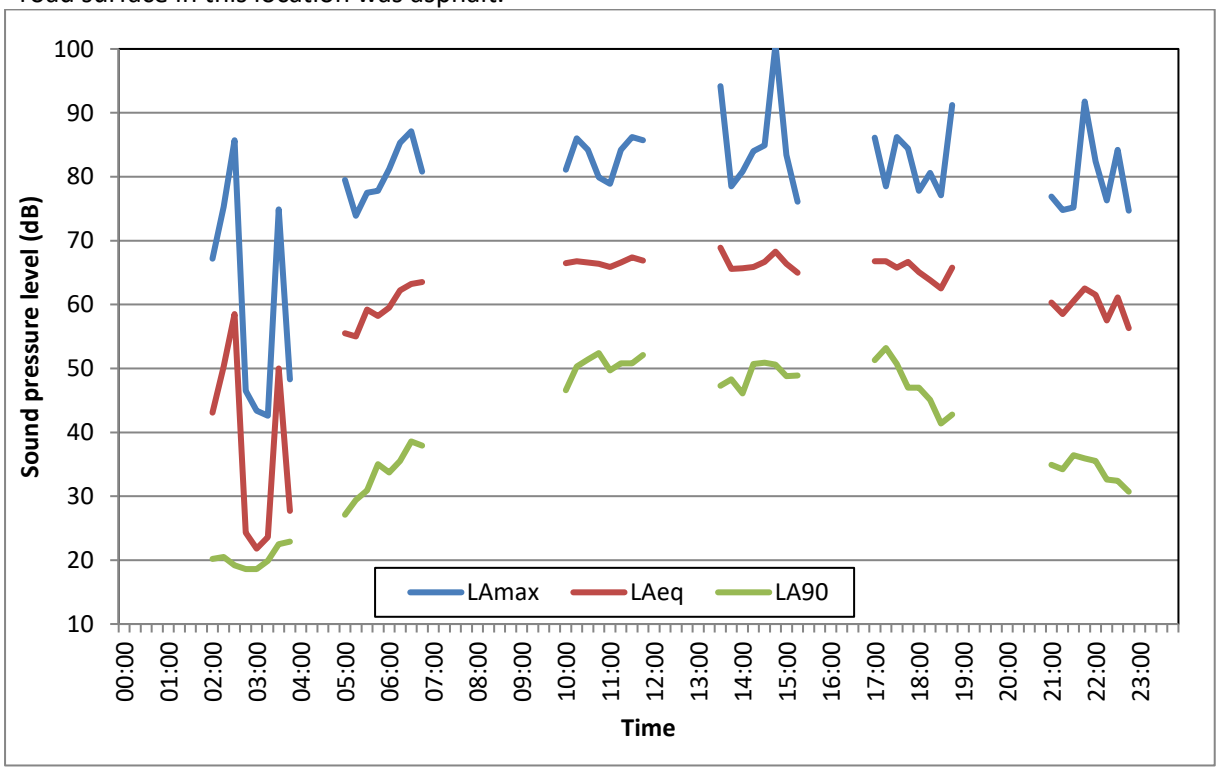


RT8 – Leiston Station

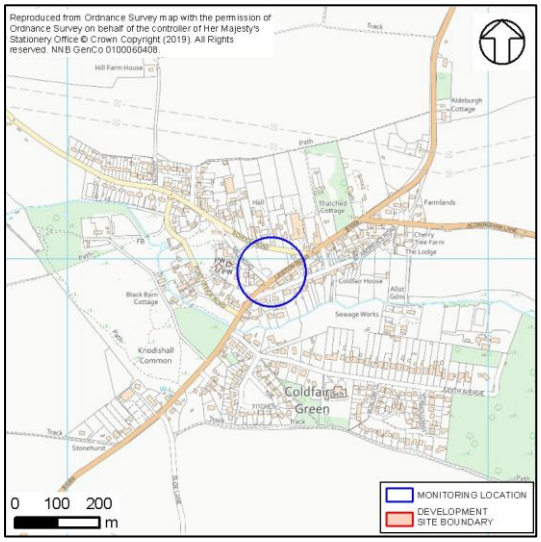
Site Description: Free-field location on grass verge two metres from the edge of Abbey Road and in sight of railway crossing.

Date: 18, 19, 21, 27 August 2014

Notes: The sound climate was comprised of road traffic noise, including heavy goods vehicles, cars and tractors, general activity from the nearby industrial estate, people walking by on pavement, and occasional aircraft. Ambient sound levels were typically around 67dB during the day. Background sound levels were typically around 49dB during the day and 28dB during the night. The L_{Amax} events during the early hours of the morning were noted to be from vehicles manoeuvring in the industrial estate. A sound level of 100dB was noted to be from a car horn. The road surface in this location was asphalt.



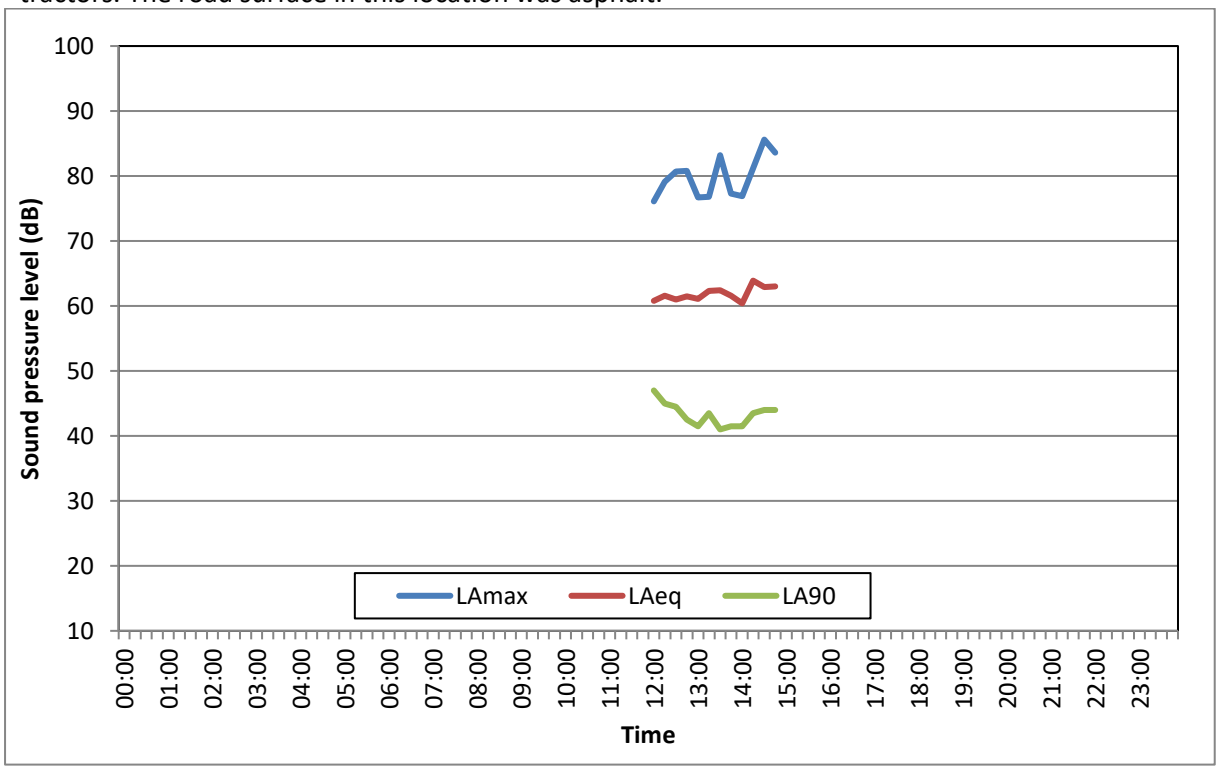
RT9 – Knodishall



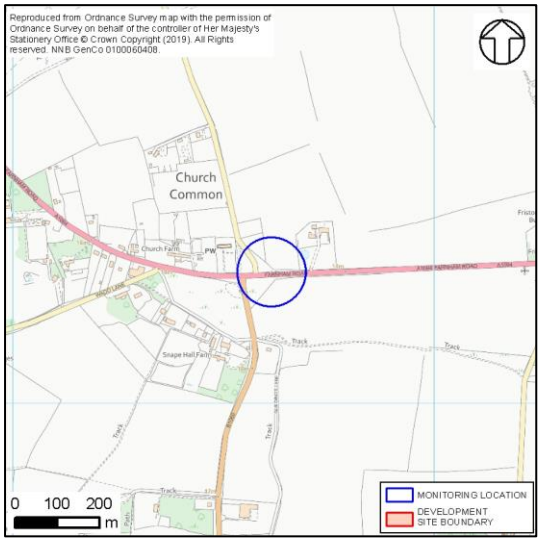
Site Description: Free-field location in Knodishall, 15 metres from bus shelter and ten metres from the edge of Snape Road on grassed area.

Date: 17 July 2014

Notes: The sound climate was comprised of regular local road traffic, including cars heavy goods vehicles, buses, tractors and motorcycles, occasional aircraft and various residential activities including DIY and gardening. Ambient sound levels were typically around 62dB. Background sound levels were typically around 44dB. L_{Amax} events were caused from passing heavy goods vehicles and tractors. The road surface in this location was asphalt.



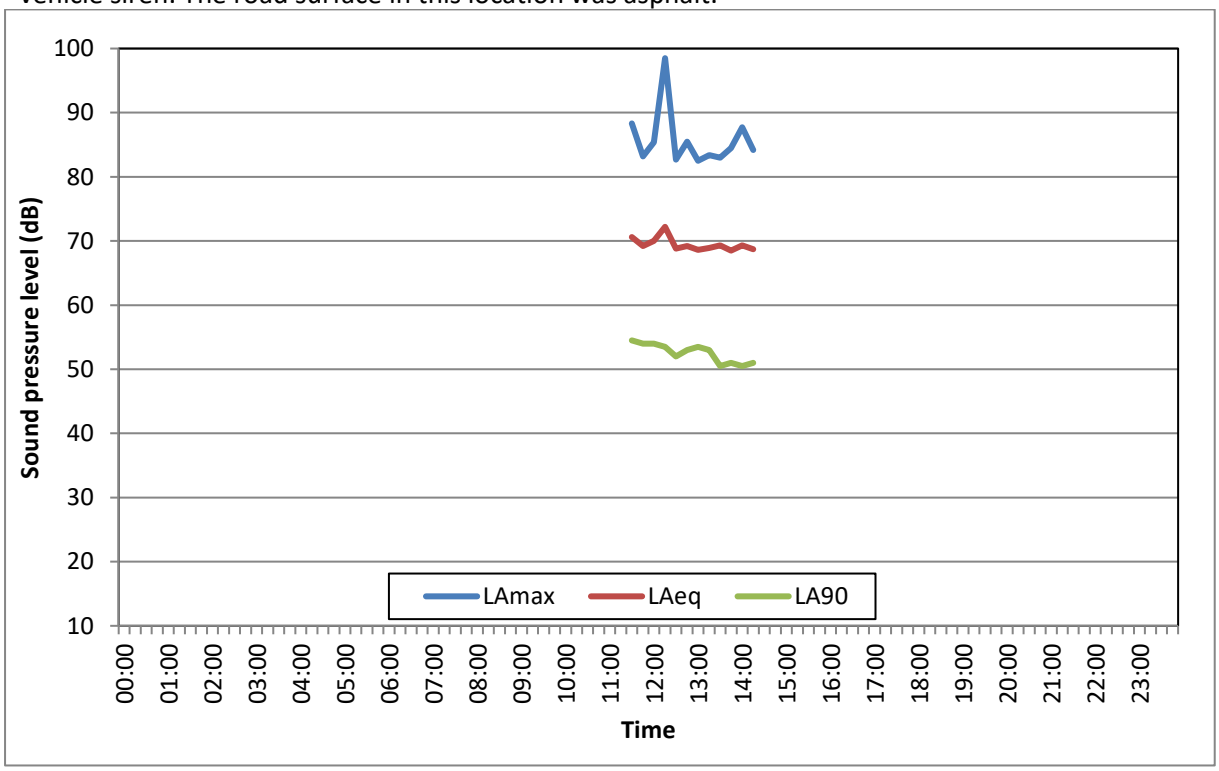
RT10 – Snape Junction



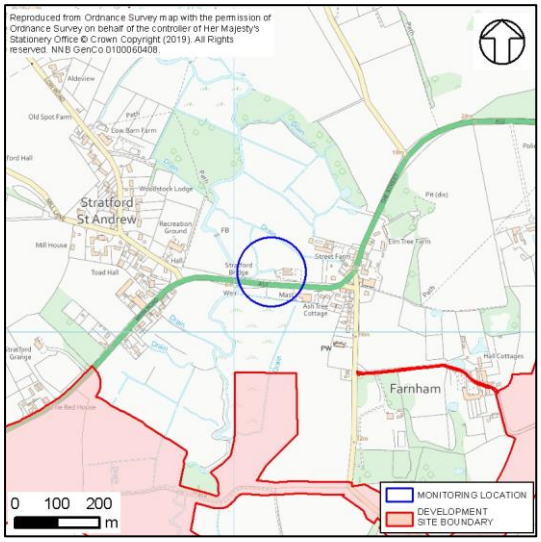
Site Description: Free-field location at the Snape cross-roads, three metres from edge of A1094 Farnham Road, and eight metres from side turning kerb.

Date: 16 July 2014

Notes: The sound climate was comprised of regular local road traffic travelling at speed and coming out of junctions, including heavy goods vehicles, tractors, cars and motorbikes. Ambient sound levels were typically around 70dB. Background sound levels were typically around 53dB. L_{Amax} events were primarily caused by tractor pass-bys. An L_{Amax} of 99dB was caused by an emergency vehicle siren. The road surface in this location was asphalt.



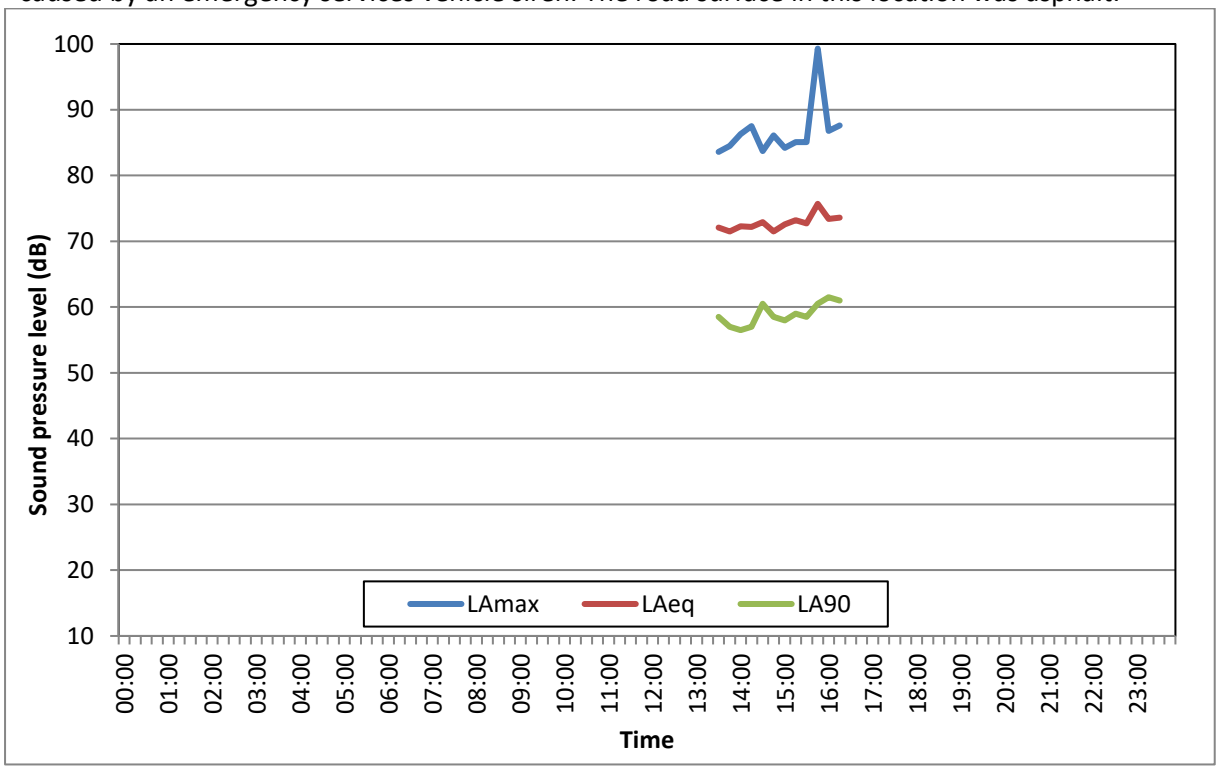
RT11 – Farnham West



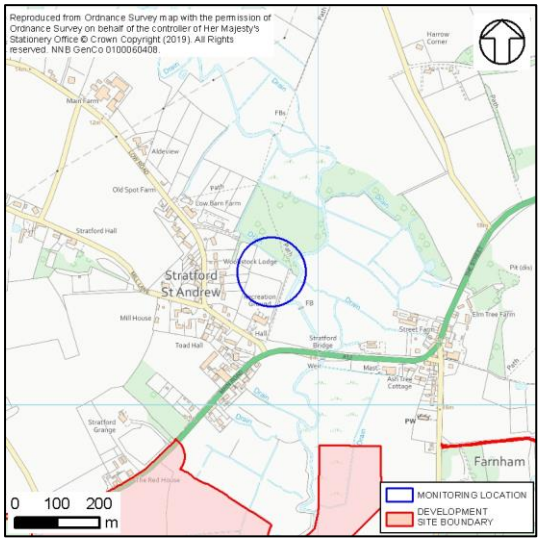
Site Description: Free-field location on grass verge two metres from kerb edge of the A12, and 22 metres from bus stop.

Date: 24 July 2014, 14 May 2019

Notes: The sound climate comprised of constant local road traffic, including heavy goods vehicles, cars, motorbikes and buses and activity at the caravan dealership opposite. Ambient sound levels were typically around 73dB. Background sound levels were typically around 59dB. A12 vehicles were responsible for the majority of L_{Amax} events between 80 and 90dB. L_{Amax} event of 100dB was caused by an emergency services vehicle siren. The road surface in this location was asphalt.



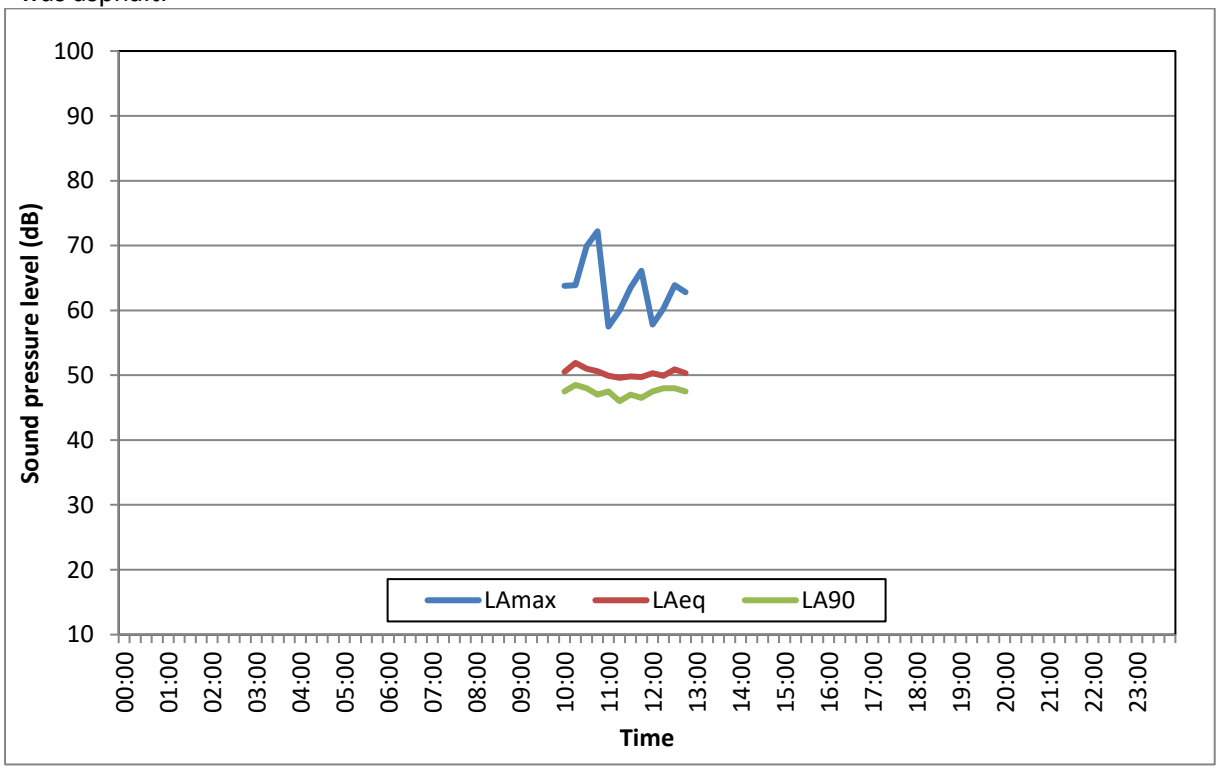
RT12 – Stratford St Andrew



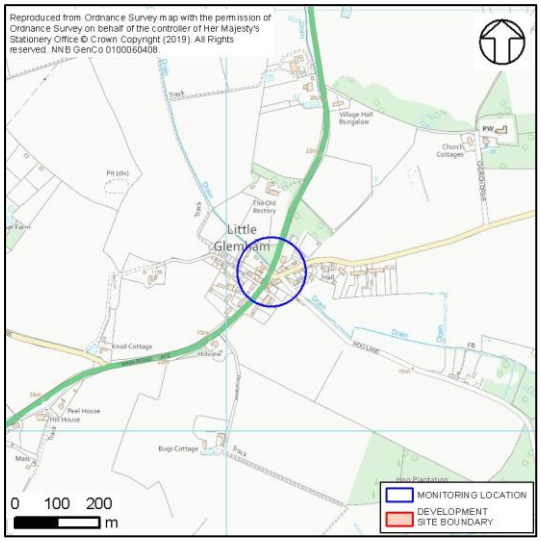
Site Description: Free-field location on public footpath two metres from playing field fence and field hedge.

Date: 24 July 2014, 14 May 2019

Notes: The sound climate was comprised of regular local road traffic on the A12, birdsong from various species, tractors, agricultural activity, occasional aircraft and shotgun noise. Ambient sound levels were typically around 50dB. Background sound levels were typically around 48dB. An L_{Amax} event of 72dB was noted to be from light overhead aircraft. The road surface in this location was asphalt.



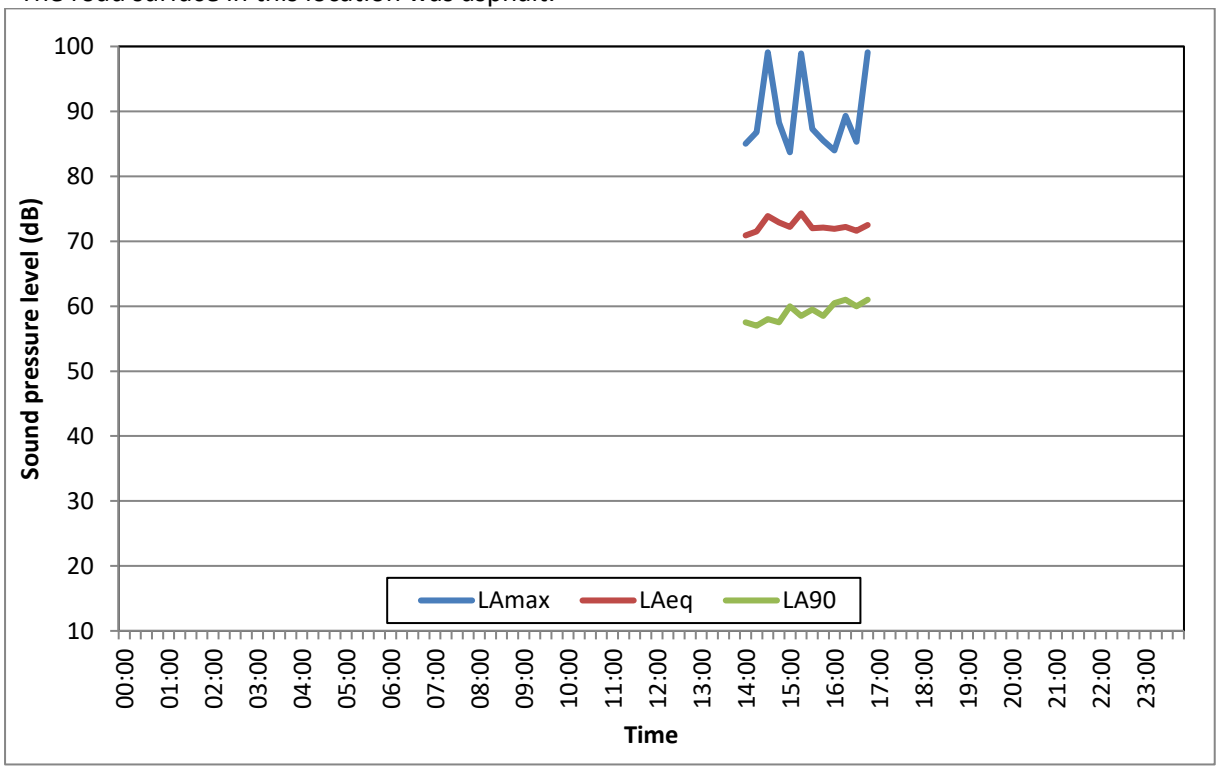
RT13 – Little Glemham



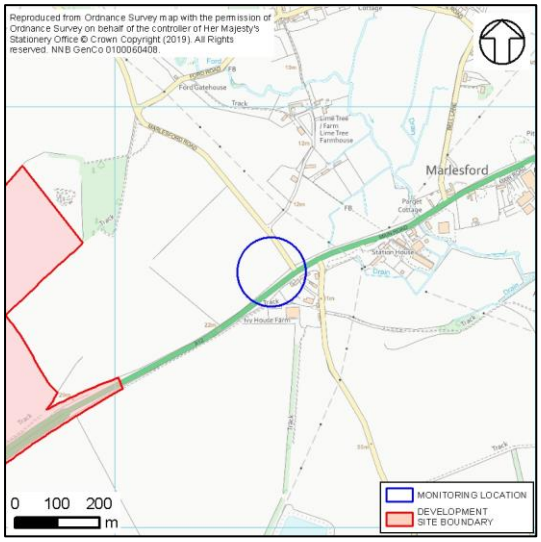
Site Description: Free-field location on grass verge four metres from edge of the A12 and Church Road, opposite the property 'Honeypot'.

Date: 22 July 2014

Notes: The sound climate was comprised of regular local road traffic on the A12, including heavy goods vehicles, cars, tractors and motorbikes. Ambient sound levels were typically around 73dB. Background sound levels were typically around 60dB. L_{Amax} events were from passing vehicles, especially heavy goods vehicles. L_{Amax} events of 99dB were caused by emergency services sirens. The road surface in this location was asphalt.



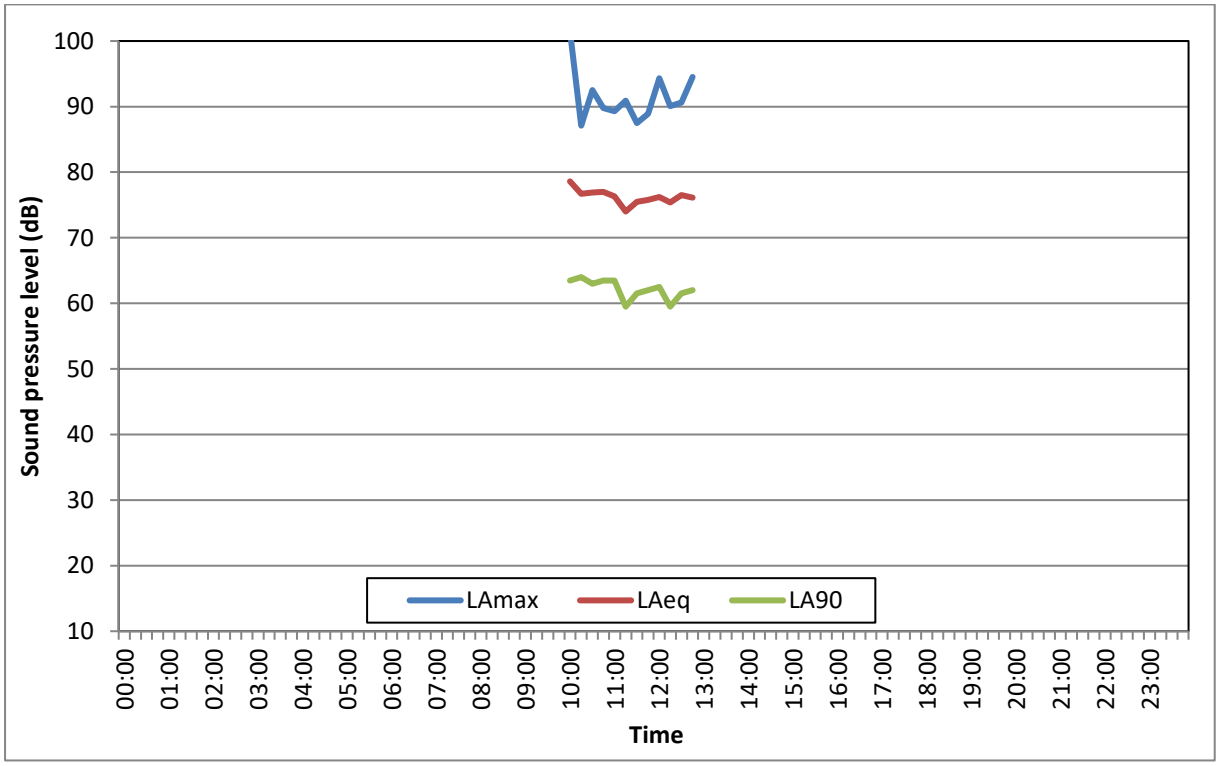
RT14 – Marlesford



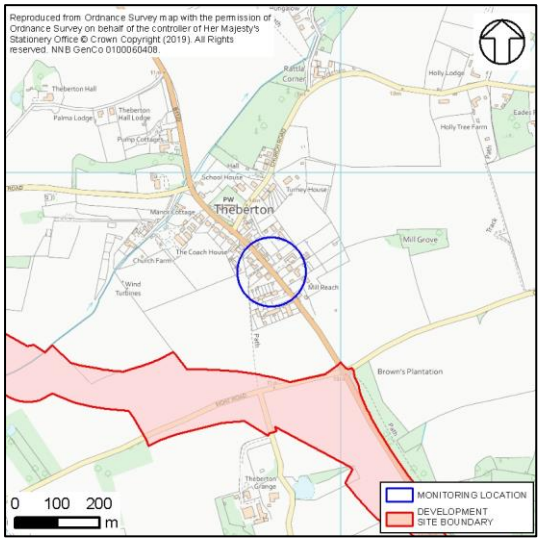
Site Description: Free-field location two metres from the edge of the A12 and five metres from a driveway between Marlesford Mill and Farm Cafe.

Date: 22 July 2014

Notes: The sound climate was comprised of regular local road traffic on the A12, including cars, heavy good vehicles and tractors. Ambient sound levels were typically 77dB. Background sound levels were typically around 63dB. An L_{Amax} event of 100dB was noted to be from an emergency services siren.



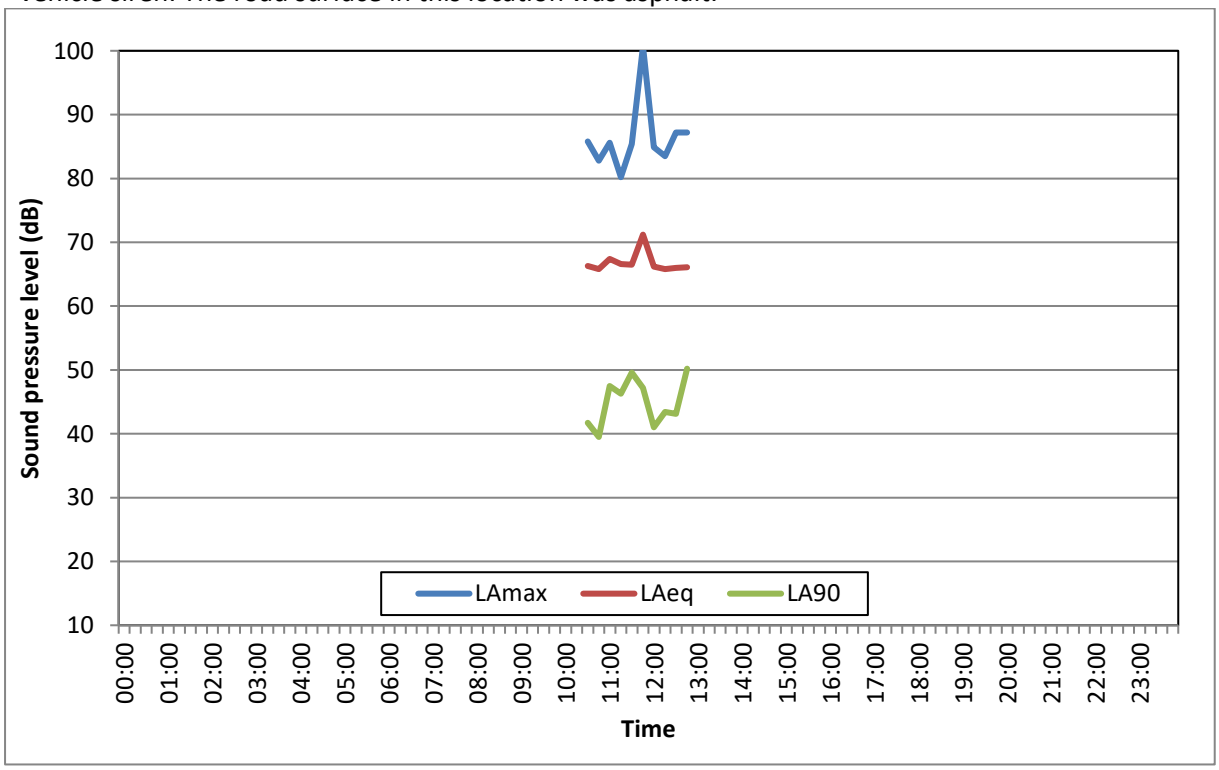
RT15 – Theberton East



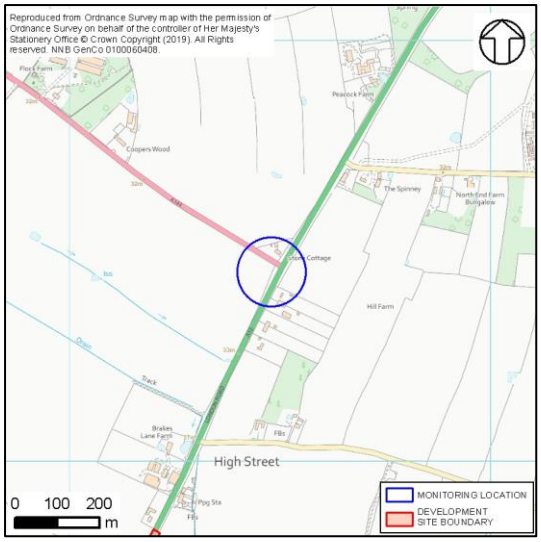
Site Description: Free-field location one metre from edge of Leiston road, on the grass verge opposite property The Granary.

Date: 20 August 2014, 20 May 2019

Notes: The sound climate was comprised of regular local road traffic, including heavy goods vehicles, cars and motorbikes, birdsong from various species and occasional aircraft. Ambient sound levels were typically around 67dB. Background sound levels were typically around 45dB. L_{Amax} events were caused from vehicles pass-bys. An L_{Amax} event of 100dB was from an emergency vehicle siren. The road surface in this location was asphalt.



RT16 – A12/A144 Junction



Site Description: Free field location at road edge, approximately six metres from the edge of the A12.

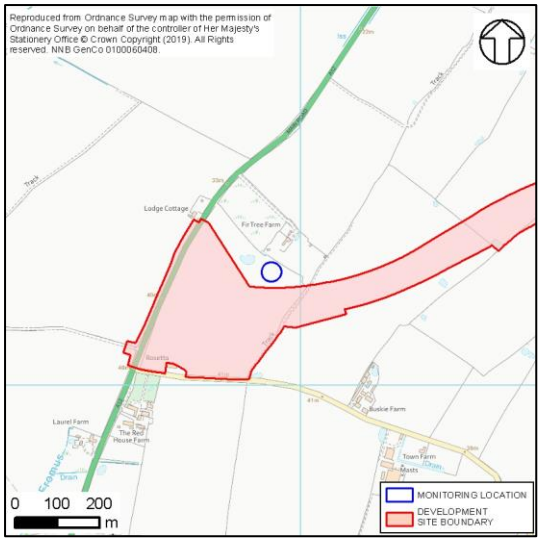
Dates: 8 August 2019

Notes: The sound climate was comprised of continuous road traffic on the A12 and A144 roads, some birdsong and occasional aircrafts. Road traffic noise was comprised of various vehicles including cars, HGVs and tractors. Vehicles frequently turned into, and out of the junction causing others to slow down and accelerate as they passed the location. Ambient sound levels were typically around 71dB with background sound levels ranging from 52-60dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Daytime	11:55	1 Hour	71	52-60	75

SLR1 – Fir Tree Farm



Site Description: Free field location at field edge, located approximately 160 metres from the A12.

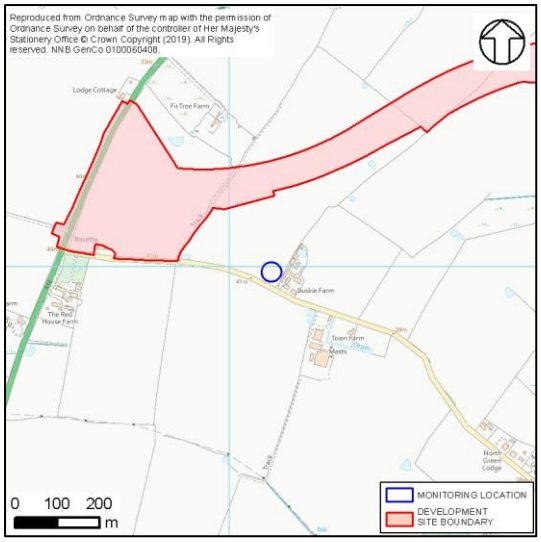
Dates: 24 May, 5 June 2019

Notes: The sound climate at this location was dominated by the A12 which was present as a continuous source. Some bird song could be heard with the road traffic noise as well as some rustling from vegetation in a light breeze. Occasional aircraft were heard at a frequency of approximately one or two every thirty minutes. Daytime ambient sound levels were measured as 50-51dB while background sound levels ranged between 38-44dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	11:10	30 Mins	51	44	62
Afternoon	14:25	30 Mins	50	38	77

SLR2 – Buskie Farm



Site Description: Free field location at field edge, approximately seven metres from edge of town farm lane.

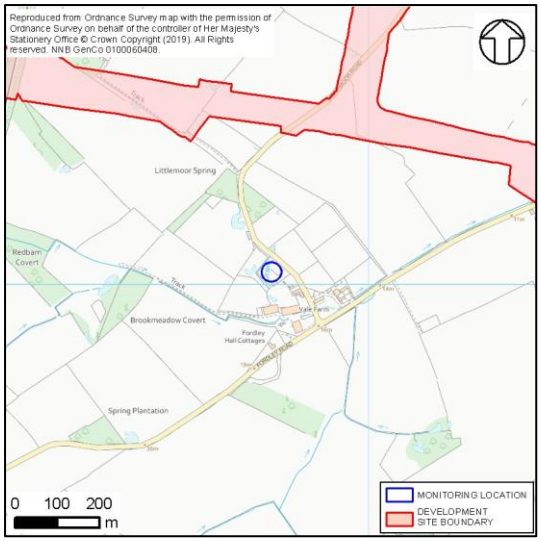
Dates: 24 May, 2 August 2019

Notes: The daytime sound climate consisted of road traffic noise, bird song and occasional aircraft noise. Sound from road traffic on the A12 dominated the background sound level and was present as a continuous source. Occasional sounds were heard from the neighbouring farm including those from a rooster, doors opening and closing and vehicles moving around. Very little traffic was noted down Town Farm Lane. The sound climate during the night was quiet, with the primary sound source being occasional cars passing along the A12. Some wildlife was heard. Ambient sound levels during the day were measured in the range 46-50dB, while background levels ranged between 38-41dB. Night-time ambient sound levels were measured as 30dB whilst background levels were measured as 23dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:43	30 Mins	46	41	64
Afternoon	13:22	30 Mins	50	38	77
Night	02:03	15 Mins	30	23	51

SLR3 – Fordley Hall



Site Description: Free field location on road edge, approximately five metres from Littlemoor Road, near to private tennis courts.

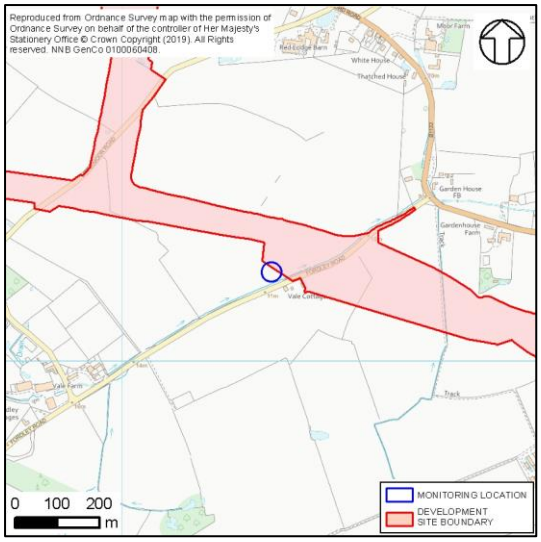
Dates: 29 May, 2 August 2019

Notes: The daytime sound climate was noted to consist of very little manmade sound, with birdsong and insects dominating and some rustle of vegetation. Occasional cars were noted in the distance along with occasional aircraft. A train was heard in the distance for approximately one minute. No cars passed the measurement location during the morning or afternoon surveys. The A12 was not audible. Night-time sound levels were generally very low. Occasional bird sounds were heard as well as aircraft. Daytime ambient sound levels were measured between 45-47dB with background sound levels ranging between 36-40dB. Night-time ambient sound levels ranged between 31-34dB while background levels ranged between 25-28dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:39	30 Mins	45	36	59
Afternoon	12:18	30 Mins	47	40	64
Night	02:20	2 Hours	31-34	25-28	50

SLR4 – Fordley Road



Site Description: Free field location along field edge within field next to Fordley road, opposite residential properties.

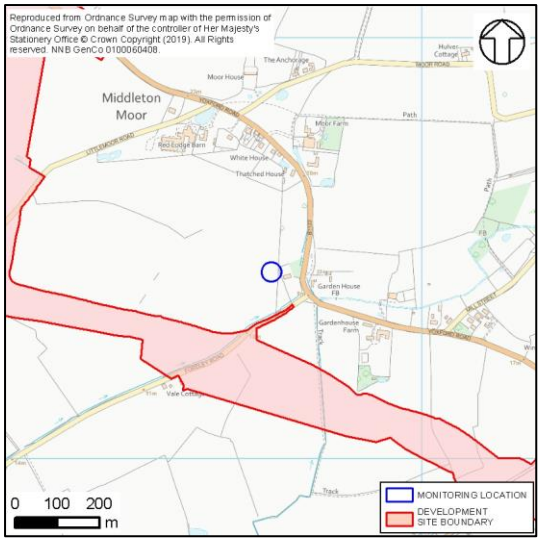
Dates: 5 June, 4 July, 2 August 2019

Notes: Intermittent construction work was noted at residential buildings opposite measurement location. Measurements were taken when construction was not occurring. The daytime sound climate was dominated by passing cars along Fordley road. Road traffic on the A12 was inaudible due to masking by other sounds, which included bird song and rustle of vegetation. Night-time sound levels were generally low with occasional aircraft and vehicles passing along A12 in distance. Daytime ambient and background sound levels ranged between 42-43dB and 27-31dB respectively. Night-time ambient sound levels ranged between 31-34dB while background sound levels were measured as 25-28dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	08:08	30 Mins	43	27	70
Afternoon	15:29	30 Mins	42	31	68
Night	00:30	2 Hours	31-34	25-28	50

SLR5 – B1122 Yoxford Road



Site Description: Free field location on field edge approximately 60 metres from A12, which is visually screened by vegetation.

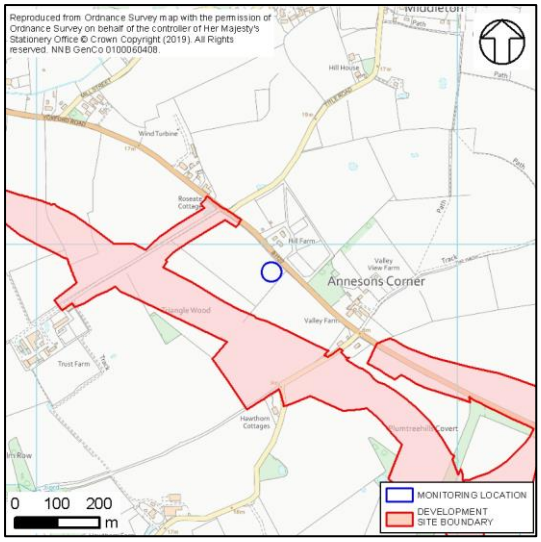
Dates: 29 May, 2 August 2019

Notes: The daytime sound climate comprised road traffic noise from the A12 with some rustle of vegetation. Wind chimes from nearby resident were occasionally audible. At night, the sound climate was quiet other than occasional vehicles passing along the A12. The rustle of vegetation and an occasional bird call were the only other audible sounds. Ambient daytime sound levels ranged between 45-50dB while background levels were measured between 39-40dB. Night-time ambient sound levels ranged between 20-30dB while background sound levels were measured as 18-25dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:57	30 Mins	45	39	65
Afternoon	13:07	30 Mins	50	40	72
Night	00:40	~2 Hours	20-30	18-25	51

SLR6 – B1122 Hill Farm



Site Description: Free field location along field edge, approximately twenty metres to the A12. Position aimed to be representative of pictured residential building.

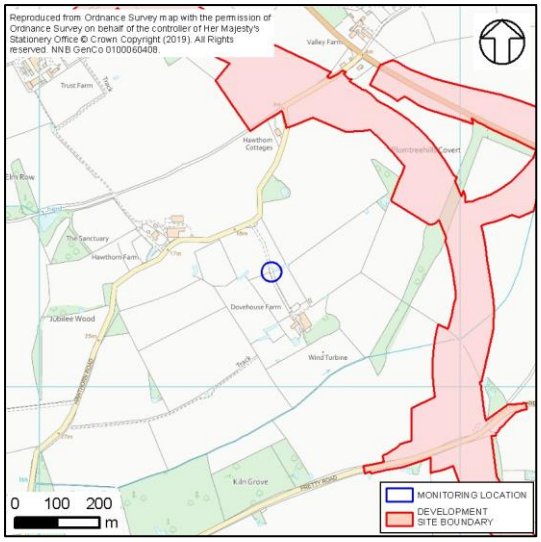
Dates: 4, 6 June, 2 August 2019

Notes: The sound climate consisted of road traffic noise, bird song and rustle of vegetation. Due to its proximity to the A12, the daytime climate was dominated by road traffic noise, which was observed as being almost continuous. Other occasional sounds noted were a helicopter in the morning and two gunshots in the afternoon measurement. The night-time climate was mostly quiet, with occasional cars passing along the A12. Background sounds consisted of some bird song and rustle of vegetation. Daytime ambient sound levels ranged between 52-45dB while night-time ambient sound levels were measured as 48 dB. Daytime and night-time background sound levels were measured as 36-37dB and 25dB respectively.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:54	30 Mins	52	37	70
Afternoon	12:04	30 Mins	54	36	69
Night	01:12	15 Mins	48	25	75

SLR7 – Dovehouse Farm



Site Description: Free-field location on grass beside combined footpath and access track to Dove House Farm. Approximately 100 metres from farm.

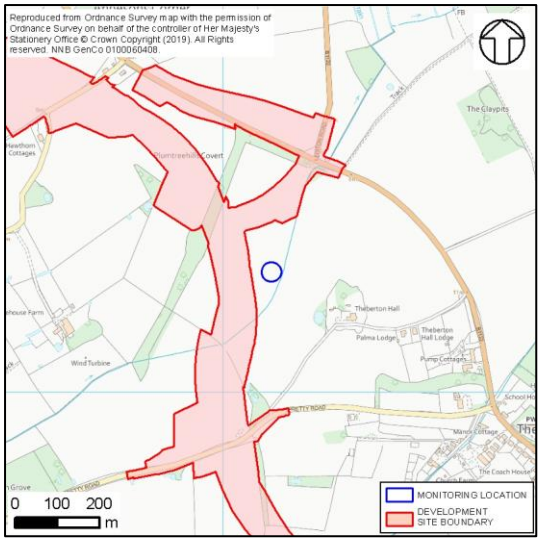
Dates: 20 May, 2 August 2019

Notes: The daytime sound climate consisted of birdsong and calls, a gentle breeze through trees and distant road traffic noise. Road traffic noise was not continuous at the location but was the dominant sound. Some occasional dog barking was heard, as well as distant hammering/banging. Sound from a wind turbine was detectable. The night-time sound climate was generally quiet with some rustle of nearby vegetation, distant cars passing along the A12 were detectable on occasion. Daytime ambient sound levels ranged between 44-43dB while night-time ambient sound levels ranged between 24-30 dB. Daytime and night-time background sound levels ranged between 34-36dB and 20-28dB respectively.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	11:52	30 Mins	44	34	67
Afternoon	16:21	30 Mins	43	36	64
Night	00:55	100 Mins	34-36	20-28	45

SLR8 – Pretty Road



Site Description: Free field location at field edge away from any roads. Approximately 170 metres away from Theberton Hall.

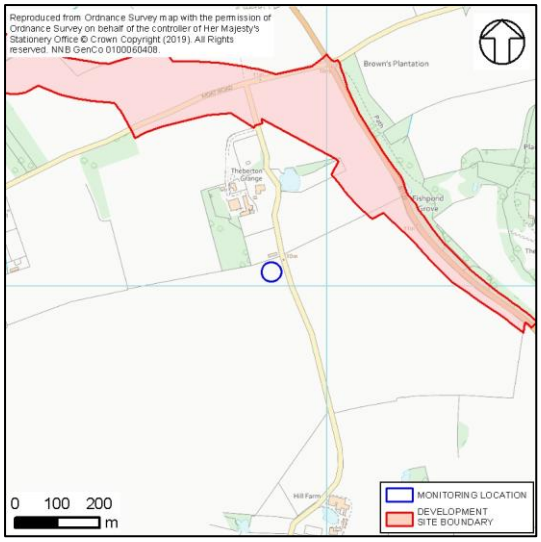
Dates: 20, 24 May 2019

Notes: Birdsong was the primary contributor to the ambient sound climate at the measurement location. Road traffic noise from the A12 was audible as a continuous source in the background. Several gunshots and dog barks were heard from a nearby wood approximately 200m to the west. Occasional aircraft were also heard. During the day, ambient sound levels ranged from 40-41dB while background sound levels ranged from 33-34dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:11	30 Mins	41	34	63
Afternoon	12:14	30 Mins	40	33	67

SLR9 – Theberton Grange



Site Description: Free field location, approximately two metres from minor road along field edge.

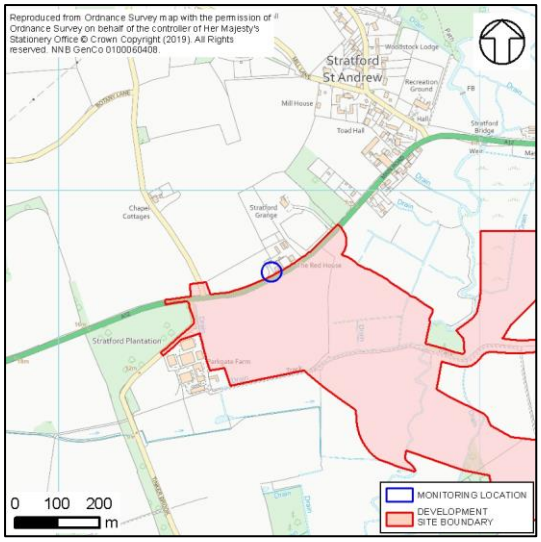
Dates: 20 May, 5 June, 2 August 2019

Notes: The sound climate at this location consisted of birdsong, road traffic noise, occasional aircraft and at times a diesel water pump in a nearby field. The water pump emitted a low level, continuous sound which contributed to the background level. Road traffic noise was regular along Abbey Road and aircraft also regular overhead. The afternoon survey was undertaken over two days and the pump remained operable, but less detectable with a different wind direction. Daytime ambient sound levels measured 43 to 44dB and background levels between 37 and 41dB. The night-time sound climate consisted of some rustle of vegetation, bird song, distant road traffic noise and occasional overhead aircraft. Night-time ambient sound levels ranged from 25-28dB, while background levels ranged between 23 and 25dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:13	30 Mins	44	41	57
Afternoon 1	16:57	30 Mins	44	41	61
Afternoon 2	14:35	30 Mins	43	37	70
Night	01:00	100 Mins	25-28	23-25	37

TVB1 – Main Road (A12) Stratford



Site Description: Free-field location at edge of the A12, approximately two metres from the road.

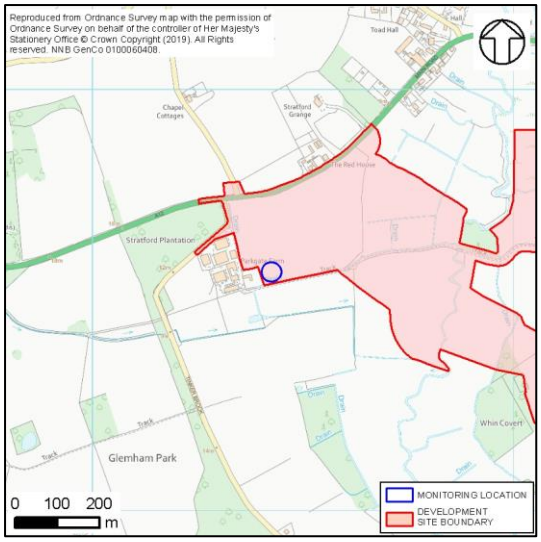
Dates: 14, 15 May, 22 June 2019

Notes: The daytime sound climate was dominated by road noise from the A12. Traffic consisted of a variety of vehicles including cars, motorbikes, HGVs and Tractors. In the occasional absence of road traffic noise, birdsong was audible as well as some very low level machinery noise from a nearby residence. Night-time sound levels were noted to be low, with very few cars passing. Occasional sound from an owl was heard. Ambient sound levels were recorded as 74dB during the day and 60dB at night. Background sound levels ranged between 51-57dB during the day and were recorded as 23dB at night.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:55	30 Mins	74	51	97
Afternoon	15:51	30 Mins	74	57	90
Night	01:37	15 Mins	60	23	81

TVB2 – Parkgate Farm



Site Description: Free-field location on field edge, south of the A12 and east of Parkgate Farm.

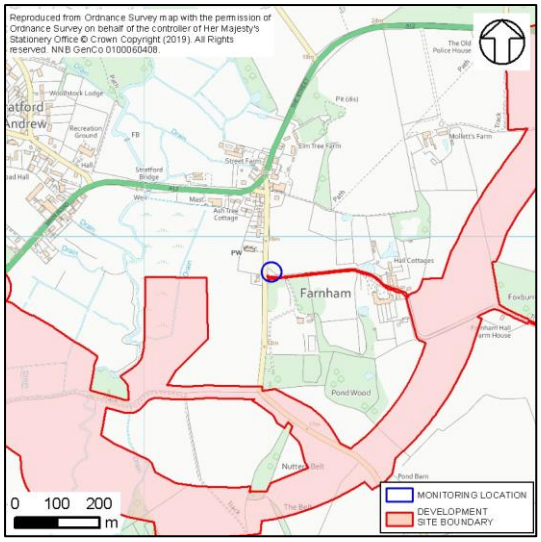
Dates: 15 August, 22 June 2019

Notes: The sound climate during the day was dominated by road traffic on the A12, by birdsong and insect sounds. A dog was heard barking from the nearby farm alongside occasional other animal sounds. A train was very briefly heard in the distance. Night-time sound levels were low in the absence of road traffic noise with the occasional sound from birds. Nine vehicles were heard passing on the A12 with approach and decay sounds being detectable for long periods. A single aircraft was noted. Ambient sound levels were measured as typically between 46-49dB during both day and night. Daytime background sound levels were measured between 42-44dB whilst night-time background was measured as 26dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:38	30 Mins	46	42	64
Afternoon	15:24	30 Mins	47	44	58
Night	01:59	15 Mins	49	26	78

TVB3 – Farnham Church



Site Description: Free-field location on corner of minor road, approximately two metres from the road edge. South-east of St. Mary's church, Farnham.

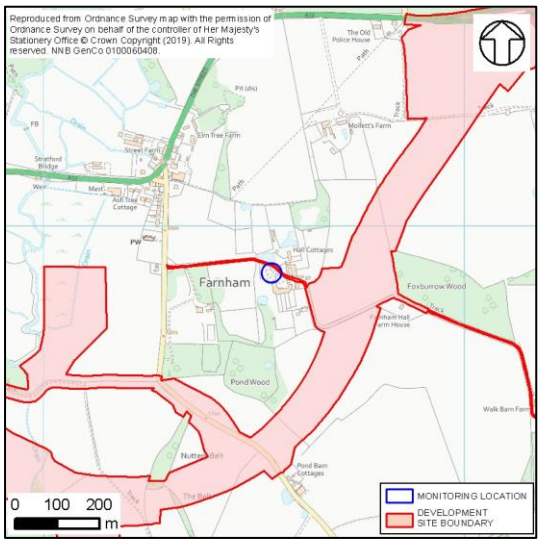
Dates: 14 May, 22 June 2019

Notes: The daytime sound climate consisted mainly of bird song, distant traffic noise and aircraft. Bird song was dominant whilst road traffic noise consisted of low level continuous sound from the A12 accompanied by an occasional vehicle travelling down lane (less than one per minute). A total of six aircraft were heard during the morning survey and two were heard in the afternoon. The night-time sound climate was noted as quiet with the dawn chorus just beginning during the survey, likely causing an elevation in the L_{A90}. Twelve vehicles were heard passing through Farnham along the A12, with all being detectable in the distance on approach and exit of the village. Daytime ambient sound levels ranged from 52-53dB while night-time ambient levels were 47dB. Background daytime and night-time sound levels were measured as 35dB and 31dB respectively.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	08:55	30 Mins	53	35	83
Afternoon	15:47	30 Mins	52	35	79
Night	03:45	15 Mins	47	31	61

TVB4 – Farnham Hall



Site Description: Free-field location on footpath/edge of private entrance track to Farnham Hall properties.

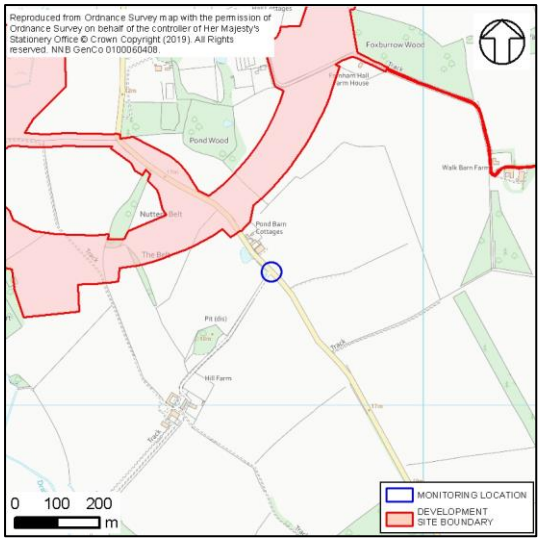
Dates: 14 May, 22 June 2019

Notes: The daytime sound climate was dominated by bird calls and song. Road traffic noise from the A12 could be constantly heard in the background. Local residents occasionally drove cars down the track. There was some sound noted from the rustle of leaves in the trees. Less frequent sounds included those from horses in neighbouring fields as well as occasional aircraft. The night-time sound climate was dominated by the dawn chorus due to the time of measurement. Distance road traffic noise was detectable on occasion alongside the sound of livestock in nearby field. The ambient sound levels during the daytime ranged between 49-51dB while the night-time ambient level was measured as 46dB. Background sound levels were 37 dB during the day and 29dB at night, though it was noted that the L_{A90} measured at night was likely elevated due to the dawn chorus.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:35	30 Mins	51	37	71
Afternoon	15:10	30 Mins	49	37	79
Night	04:05	15 Mins	46	29	65

TVB5 – Pond Barn Cottages



Site Description: Free-field location at junction of road and farm estate entrance track. Microphone approximately five metres from edge of road.

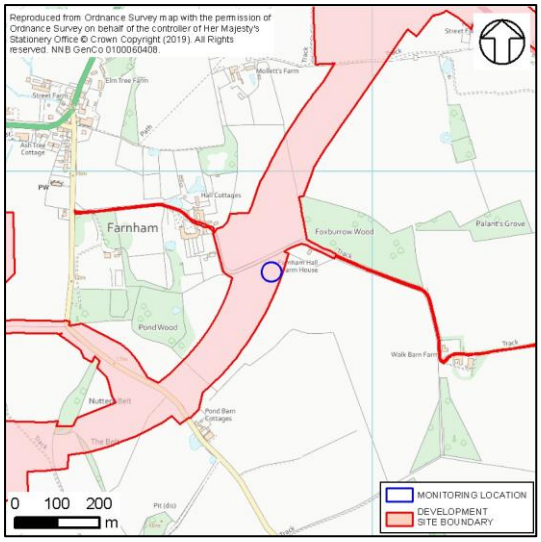
Dates: 14 May 2019

Notes: The sound climate consisted of various birdsong, distant road traffic noise , occasional aircraft, and gentle rustling of vegetation. Bird song was dominant while road traffic noise was heard as a continuous sound. Occasionally cars would pass along the track, at a rate of less than per minute. Sound from nearby pigs was audible at the location, with a tractor being briefly heard from the same place. Three aircraft were heard during morning survey while only one was heard during the afternoon survey. Ambient sound levels during the day were measured between 43-46dB while background levels ranged between 31-32dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	11:06	30 Mins	46	31	71
Afternoon	16:27	30 Mins	43	32	67

TVB6 – Farnham Hall Farmhouse



Site Description: Free-field location at edge of footpath/private entrance track and field boundary approximately 70 metres from Farnham Hall Farmhouse boundary.

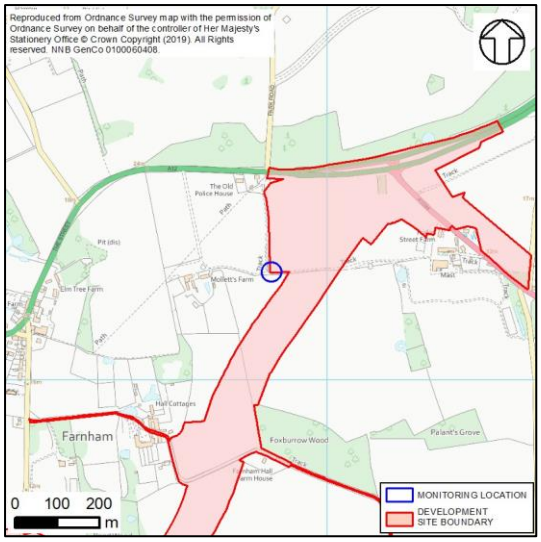
Dates: 14 May 2019

Notes: The sound climate was mostly dominated by bird calls and song. Rustling vegetation alongside this contributed to the ambient sound levels at this location. Distant road traffic noise from the A12 was audible as a continuous source in the background. Occasional aircraft were audible and occasional dog barking was also heard. Ambient sound levels at the location ranged from 39-44dB while background sound levels were measured as 34dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:15	30 Mins	44	34	63
Afternoon	14:16	30 Mins	39	34	60
Night	04:05	15 Mins	46	29	65

TVB7 – Mollett's Farm



Site Description: Free-field location on public footpath at field edge. East of Mollett's Farm.

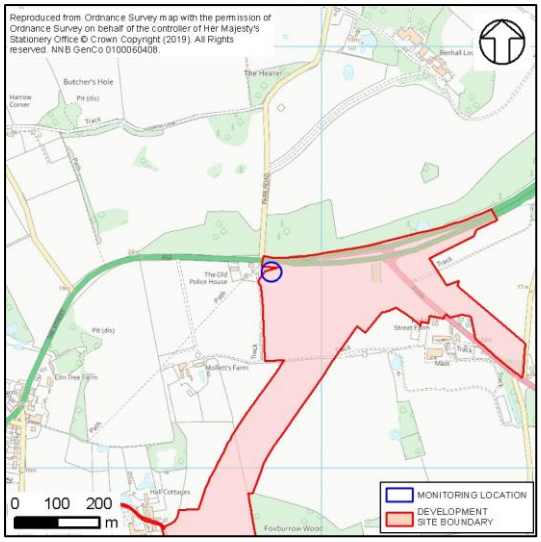
Dates: 15 May 2019

Notes: The sound climate was mainly dominated by natural sounds in this location. The A12 was continuously audible in the background but was at a low level. The only other man-made sound was an aircraft. Birdsong and insect sound could be heard alongside the rustling of nearby trees and bushes. Daytime ambient sound levels were typically 46-47dB whilst background sound levels were 43dB.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	09:58	30 Mins	47	43	58
Afternoon	13:30	30 Mins	46	43	65

TVB8 – The Old Police House



Site Description: Free-field location at edge of field, in close proximity to A12. Approximately ten metres to the road centre.

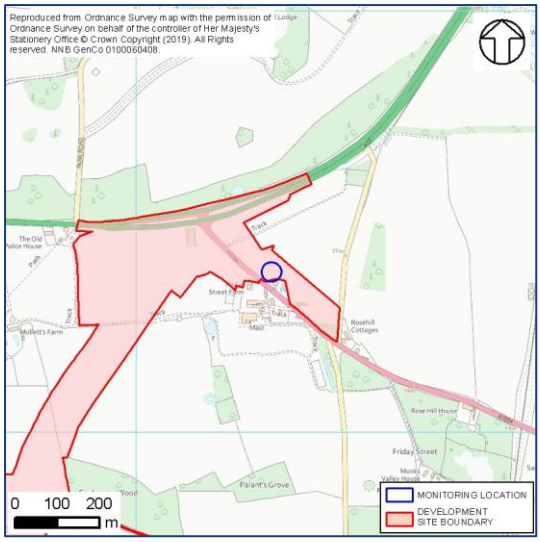
Dates: 15 May, 22 June 2019

Notes: The daytime sound climate was dominated by the A12 due to its proximity. Various birdsong could be heard particularly in gaps between traffic. Various vehicles were present on the A12 including cars, motorbikes, HGVs and tractors. The night-time sound climate was noted as quiet in the absence of traffic, which was occasionally heard from the A12. Occasional bird song was audible. Daytime ambient sound levels were measured as typically between 64-66dB while night-time ambient levels were measured as 57dB. Background sound levels during the day were measured between 50-51dB and 23dB at night.

Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	10:15	30 Mins	66	51	81
Afternoon	14:24	30 Mins	64	50	93
Night	03:25	15 Mins	57	23	81

TVB9 – Friday Street



Site Description: Free-field location in field which borders A1094, in close proximity to Friday street café. Approximately ten metres to road side.

Dates: 15 May, 22 June 2019

Notes: The daytime sound climate was dominated by road traffic noise from the both the A12 at approximately 200 metres from the measurement location, and the A1094 past Friday Street Cafe. Vehicles stopping and turning into and out of the Friday Street complex could be heard. During moments of little traffic, birdsong was audible. The night-time ambient sound levels were mostly influenced by vehicles passing on the A12, of which there were ten during the measurement period. In the absence of road traffic noise , low level plant sound could be heard emanating from the Friday Street complex. Daytime ambient sound levels were measured at 49dB while night-time levels were 44dB. Daytime and night-time background sound levels were 44dB and 27dB respectively.

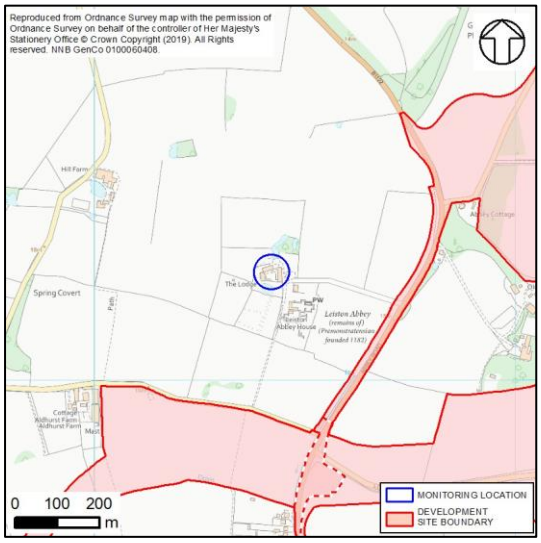
Results:

Period	Time	Duration	Sound Pressure Level [dB]		
			L_{Aeq}	L_{A90}	L_{Amax}
Morning	11:05	30 Mins	59	48	74
Afternoon	12:44	30 Mins	59	48	80
Night	03:06	15 Mins	44	27	67

ANNEX C

BASELINE VIBRATION SURVEY SUMMARY SHEETS

V1 – Leiston Abbey



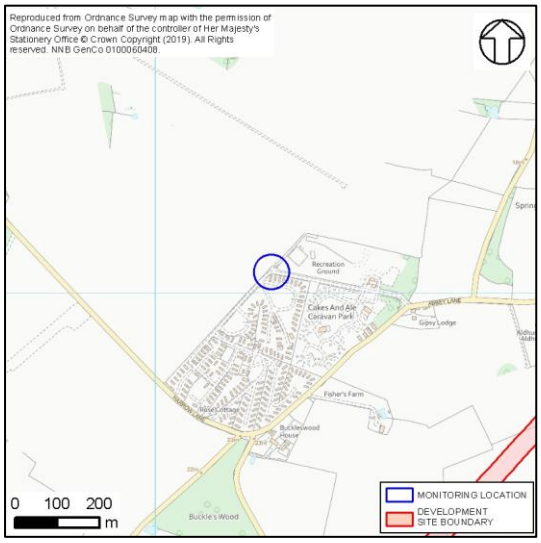
Site Description: Vibrock meter on compacted ground at the rear of pro corda premises at Leiston Abbey.

Dates: 30 July - 6 August 2014

Notes: Unattended seven day survey. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
30 to 31 July (night)	0.033	0.033	0.026
31 July (day)	0.038	0.039	0.034
31 July to 1 August (night)	0.032	0.033	0.027
1 August (day)	0.048	0.050	0.050
1 to 2 August (night)	0.037	0.039	0.037
2 August (day)	0.045	0.046	0.048
2 to 3 August (night)	0.037	0.041	0.038
3 August (day)	0.096	0.098	0.101
3 to 4 August (night)	0.043	0.043	0.048
4 August (day)	0.049	0.051	0.054
4 to 5 August (night)	0.033	0.040	0.035
5 August (day)	0.042	0.046	0.045
5 to 6 August (night)	0.039	0.037	0.044
6 August (day)	0.044	0.050	0.046

V2 – Cakes and Ale



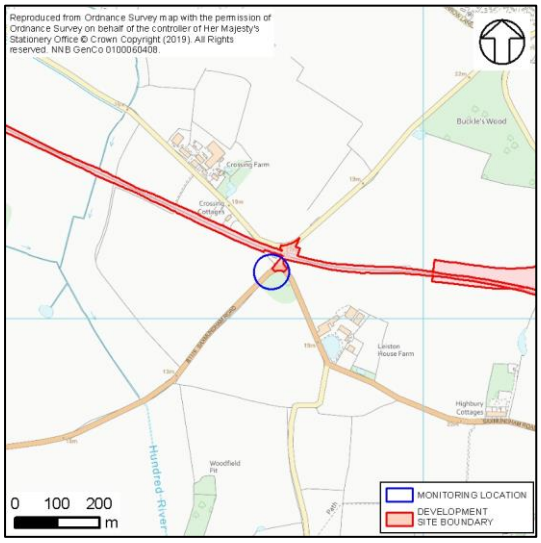
Site Description: Rion VM-54 meter on compacted ground at rear of cabin on campsite.

Dates: 11-15 August 2014

Notes: Unattended four day survey. Campsite road around ten metres from measurement location. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
11 August (day)	0.0009	0.0009	0.0008
11 to 12 August (night)	0.0015	0.0009	0.0006
12 August (day)	0.0015	0.0011	0.0009
12 to 13 August (night)	0.0006	0.0006	0.0008
13 August (day)	0.0009	0.0009	0.0009
13 to 14 August (night)	0.0006	0.0006	0.0006
14 August (day)	0.0030	0.0028	0.0014
14 to 15 August (night)	0.0007	0.0006	0.0006

V3 – Gatehouse, Saxmundham Road



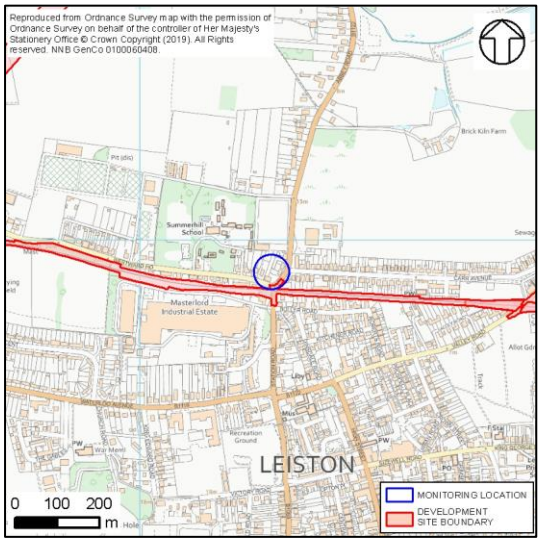
Site Description: Vibrock meter on hard standing at kerb of road (crossing lane) near junction with Saxmundham oad.

Date: 26, 27, 28 August 2014

Notes: Potential vibration sources were road traffic. The railway line was inactive throughout the survey. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
0200-0300 (28 August 2014)	0.020	0.021	0.015
0300-0400 (28 August 2014)	0.020	0.021	0.015
0500-0600 (28 August 2014)	0.020	0.021	0.015
0600-0700 (28 August 2014)	0.019	0.021	0.018
1000-1100 (27 August 2014)	0.018	0.019	0.018
1100-1200 (27 August 2014)	0.018	0.019	0.018
1340-1440 (26 August 2014)	0.019	0.020	0.015
1440-1540 (26 August 2014)	0.019	0.020	0.016
1700-1800 (26 August 2014)	0.019	0.021	0.015
1800-1900 (26 August 2014)	0.019	0.021	0.016
2100-2200 (26 August 2014)	0.019	0.021	0.015
2200-2300 (26 August 2014)	0.020	0.017	0.015

V4 – Leiston Station



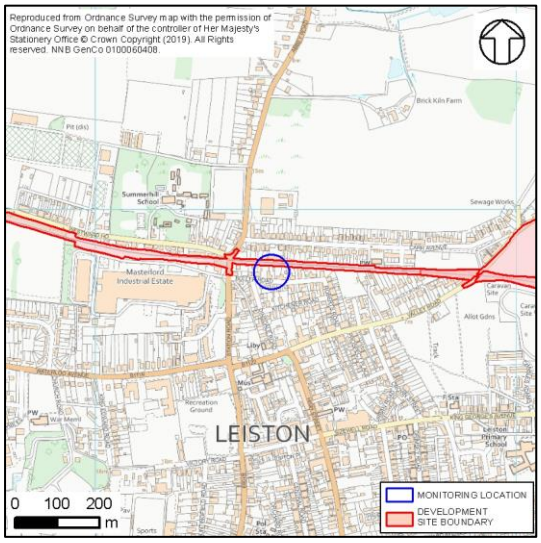
Site Description: Vibrock / Rion VM-54 meter on compacted ground at rear of pavement to road (two metres from Abbey road) close to railway crossing.

Date: 18, 21 & 27 August 2014

Notes: Potential vibration sources were road traffic. The railway line was inactive throughout the survey. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
0200-0300 (21 August 2014)	0.004	0.006	0.009
0300-0400 (21 August 2014)	0.002	0.002	0.004
0500-0600 (21 August 2014)	0.010	0.011	0.020
0600-0700 (21 August 2014)	0.014	0.017	0.030
1700-1800 (18 August 2014)	0.017	0.015	0.034
1800-1900 (18 August 2014)	0.016	0.014	0.031
2100-2200 (27 August 2014)	0.019	0.021	0.017
2200-2300 (27 August 2014)	0.020	0.022	0.016

V5 – Leiston Centre



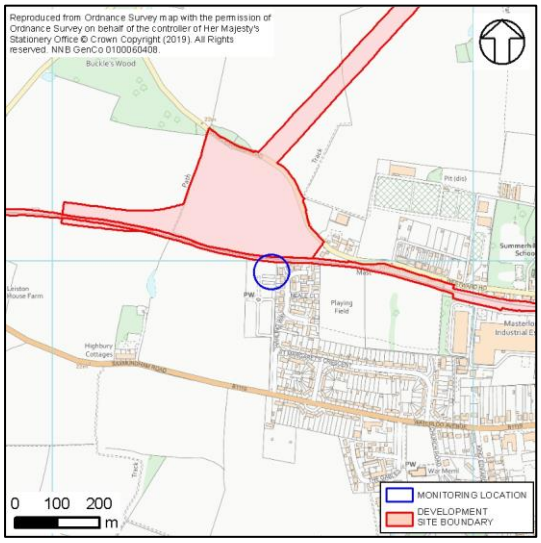
Site Description: Vibrock on hard standing at rear of private garden, two metres from boundary to railway land.

Date: 11-21 August 2014

Notes: Unattended ten day survey. Potential vibration sources were road traffic. The railway line was believed to be inactive throughout the survey. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
11 to 12 August (night)	0.035	0.035	0.026
12 August (day)	0.041	0.039	0.031
12 to 13 August (night)	0.035	0.034	0.026
13 August (day)	0.041	0.038	0.031
13 to 14 August (night)	0.034	0.034	0.026
14 August (day)	0.041	0.038	0.031
14 to 15 August (night)	0.034	0.034	0.026
15 August (day)	0.040	0.038	0.058
15 to 16 August (night)	0.034	0.034	0.026
16 August (day)	0.040	0.037	0.030
16 to 17 August (night)	0.034	0.033	0.025
17 August (day)	0.040	0.037	0.030
17 to 18 August (night)	0.034	0.034	0.026
18 August (day)	0.039	0.037	0.032
18 to 19 August (night)	0.034	0.034	0.026
19 August (day)	0.039	0.037	0.030
19 to 20 August (night)	0.034	0.034	0.026
20 August (day)	0.039	0.037	0.030
20 to 21 August (night)	0.034	0.034	0.026
21 August (day)	0.039	0.038	0.031

V6 – Leiston West



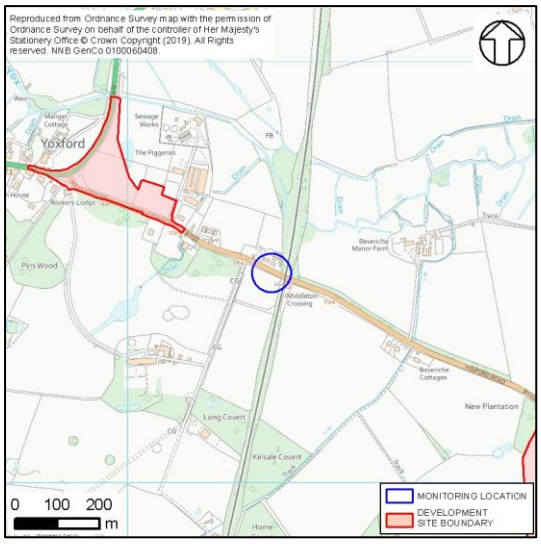
Site Description: Vibrock meter on hard standing within parking area off Harling Way close to a railway line.

Date: 28, 31 October 2014

Notes: Potential vibration sources were near and distant road traffic (including from B1119) and local activity. The railway line was believed to be inactive throughout the survey. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
0200-0300 (31 October 2014)	0.020	0.019	0.015
0300-0400 (31 October 2014)	0.020	0.020	0.015
0500-0600 (31 October 2014)	0.020	0.020	0.015
0600-0700 (31 October 2014)	0.020	0.020	0.015
1000-1100 (28 October 2014)	0.020	0.018	0.015
1100-1200 (28 October 2014)	0.020	0.018	0.015
1330-1430 (28 October 2014)	0.020	0.018	0.015
1430-1530 (28 October 2014)	0.020	0.018	0.015
1700-1800 (28 October 2014)	0.020	0.019	0.015
1800-1900 (28 October 2014)	0.020	0.019	0.016
2100-2200 (28 October 2014)	0.020	0.019	0.015
2200-2300 (28 October 2014)	0.020	0.019	0.015

V7 - Middleton Moor



Site Description: Vibrock meter approximately 0.5 metres from kerb and three metres from railway line.

Dates: 28 July 2014

Notes: Potential vibration sources were road and rail traffic. Monitored vibration levels were low at all times.

Date / Time Period	Vibration Dose Value, $ms^{-1.75}$		
	x axis (W_b)	y axis (W_b)	z axis (W_d)
1000-1145 (28 July 2014) (stopped early due to rain)	0.022	0.023	0.020