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Date	**Version**	**Status**	**Description / Changes**
01/11/2022	A	FINAL	First Issue
26/04/2023	B	FINAL	Update to include additional survey data (additional ground level roost assessments and aerial tree-climbing inspections)

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1. Introduction

1.1 Purpose of this report

1.1.1 This report has been produced for the purpose of presenting the results of the bat surveys undertaken as part of the Yorkshire Green Energy Enablement (GREEN) Project ("the Project" or "Yorkshire GREEN").

1.2 The Project

1.2.1 The Project comprises new electricity infrastructure, such as new overhead lines, substations, cables and equipment to connect overhead lines to buried cables, known as Cable Sealing End Compounds (CSECs), as well as works to existing overhead lines and substations.

1.2.2 The Project is a Nationally Significant Infrastructure Project (NSIP) and requires consent from the Secretary of State via a Development Consent Order (DCO).

1.2.3 The maximum extent of development for which permission will be sought is indicated by the Order Limits, land within which is hereafter referred to as 'land within the Order Limits'. These are illustrated on **Figure 1.2, Volume 5, Document 5.4.1**.

1.2.4 Where appropriate, reference is also made in this report to the 'survey area' encompassing land within the Order Limits plus an additional 50 metres (m) surrounding buffer (which is shown on **Figure 8.5, Volume 5, Document 5.4.8**). This buffer accounts for the potential of ecological features present immediately outside of the Order Limits to be impacted by the Project. The Order Limits and survey area is dominated by arable fields with rough grass field margins and bound by hedgerows. Areas of woodland and scrub are also present.

1.2.5 This report details the results of bat surveys undertaken as part of the Ecological Impact Assessment (EcIA) to inform the Environmental Statement (ES) for the Project. This report forms a technical appendix to **Chapter 8: Biodiversity, Volume 5, Document 5.2.8.**

1.3 Legislative context

1.3.1 All British bat species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). Taken together, this legislation makes it an offence, inter alia, to undertake the following:

- Deliberately capture, injure or kill a bat;
- Deliberately disturb a bat (this applies anywhere, not just at its roost), in particular in such a way as to be likely to;
  - impair their ability to survive, breed or reproduce, or rear or nurture their young;
  - impair their ability to hibernate or migrate; or
  - affect significantly the local distribution or abundance of that bat species.

- Damage or destroy a breeding site or resting place of any bat;
- Intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any place that a bat uses for shelter or protection (this is taken to mean all bat roosts whether bats are present or not).

1.3.2 The legislation afforded to bats has been considered when designing survey scope to inform the assessment (set out in **Section 2**) ensuring appropriate survey methods and coverage to establish whether the Project could potentially cause an offence under the legislation.

1.3.3 **Chapter 8: Biodiversity, Volume 5, Document 5.2.8** outlines all relevant national and local planning policy for biodiversity.

2. Methods

2.1 Overview

2.1.1 A variety of field survey methods (as discussed further below) were used to assess the presence and usage of land by bats within the Order Limits. These have been conducted in in line accordance with the following best practice guidelines: Bat Surveys for Professional Ecologists: Good Practice Guidelines, Third Edition (Bat Conservation Trust, 2016) [1]

- Bat Workers' Manual, Third Edition (Mitchell-Jones and McLeish, 2004)[2]
- Bat Mitigation Guidelines (Natural England, 2004)[3]
- British Standards (BS) 8596:2015 Surveying for Bats in Trees and Woodland (British Standards Institution, 2016)[4]
- Bat Tree Habitat Key (Andrews *et al*, 2013)[5]

2.1.2 The above best practice guidance has been interpreted using professional experience from suitably qualified and experienced consultants to develop a robust and detailed survey design specific to the survey area and adapted as necessary to account for emerging survey data.

2.2 Desk study

2.2.1 To inform the survey and assessment process, a desk based data-gathering exercise was undertaken to obtain relevant bat data from the local area for the last ten years (2011-2021). This data was requested from West Yorkshire Joint Services (WYJS) and North and East Yorkshire Ecological Data Centre (NEYEDC) respectively in June 2021. MagicMap[6] was also utilised for licence records.

2.2.2 The data gathered included the following:

- information relating to designated sites with bat interest features up to 10km from the Order Limits;
- records of foraging and commuting bats up to 2km from the Order Limits;

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[1] J. Collins (ed.). (2016) Bat surveys for professional ecologists: Good practice guidelines. 3rd Edition. Bat Conservation Trust; London.
[2] A.J. Mitchell-Jones A.P. McLeish, A.P. (2004). Bat Workers' Manual. 3rd Edition. JNCC; Peterborough.
[3] A.J. Mitchell-Jones (2004). Bat Mitigation Guidelines. Natural England; Peterborough.
[4] British Standards Institution (2015). BS 8596:2015: Surveying for bats in trees and woodland. BSI; London.
[5] H. Andrews (2018). Bat roosts in trees: a guide to identification and assessment for tree-care and ecology professionals. Pelagic Publishing; Exeter
[6] Defra (2022). Magic maps. (online) Available at: https://magic.defra.gov.uk/magicmap.aspx (Accessed October 2022).

- records of bat roosts up to 5km from the Order Limits; and
- records of active or recent European Protected Species Mitigation (EPSM) licences covering bats.

2.3 Field surveys

Approach to field survey design

Overview

2.3.1 To enable a robust and proportionate assessment, a variety of best practice survey methods were implemented to assess the presence and usage of land by bats within the Order Limits. These methods included the following:

- Habitat assessment;
- Activity survey:
  - Manual transect survey; and
  - Static monitoring survey.
- Roost identification in trees and buildings:
  - Preliminary Ground Level Roost Assessment (GLRA) of trees;
  - Aerial tree-climbing inspections; and
- Acoustic data analysis.

Habitat assessment

2.3.2 An extended Phase 1 habitat survey[7] of the survey area (where access was permitted and possible) was undertaken by between May 2021 and July 2022 (**Appendix 8B: Extended Phase 1 habitat report, Document 5.3.8B, Volume 5**). During the survey habitats were assessed for their suitability to support foraging (based on BCT guidelines, 2016[1]), roosting and commuting bats and were assigned a category of suitability, as defined in **Table 2.1**.

Table 2.1 – Factors considered when assessing the potential suitability of habitats for bats

Suitability	Features
Negligible	Negligible habitat features that are likely to be used by foraging or commuting bats. Habitat may be brightly lit by artificial lighting.
Low	Habitat that could be used by small numbers of commuting bats such as hedgerows with intermittent gaps or an unvegetated stream, but isolated and not well connected to the surrounding landscape by other suitable habitats.

[7] Joint Nature Conservation Committee (JNCC) (2010). Handbook for Phase 1 Habitat Survey: a Technique for Environmental Audit (online) Available at: https://hub.jncc.gov.uk/assets/9578d07b-e018-4c66-9c1b-47110f14df2a (Accessed 11 August 2021).

Suitability	Features
	Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub. A site/habitat may be well-lit by artificial lighting in some areas.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting, such as lines of trees and scrub. Habitat connected to the wider landscape that could be used by bats for foraging such as woodlands, scrub, grassland or open water. Habitat may be lit by artificial lighting, but this is low-level and/or only affects parts of the habitat within a given site.
High	Continuous, high-quality habitat that is well connected to the wider landscape and likely to be regularly used by commuting bats. Such as river valleys, vegetated streams, intact hedgerows and woodland edge. High quality habitat that is well connected to the wider landscape and likely to be rich in invertebrate prey for foraging bats. Such as broadleaved woodland, tree-lined watercourses, water bodies and grazed parkland. Habitat is typically unlit by artificial lighting.

Activity survey

Manual transect survey

2.3.3 The extended Phase 1 habitat survey identified the survey area as having Moderate suitability in accordance with BCT guidelines (2016) [1], to support commuting and foraging bats. In line with Bat Conservation Trust (2016) guidelines the following survey effort was applied with regards to manual transect survey work:

- One survey visit per month (April to October inclusive) in appropriate weather conditions for bats. At least one of the surveys should comprise a dusk and pre-dawn survey (or dusk to dawn survey) within one 24-hour period.

2.3.4 Four transect routes: Transects 1, 2, 4 and 5 (the 'Transect Routes' or the 'Transects') (see **Figure 8.22, Volume 5, Document 5.4.8**) were designed to be a similar length, survey suitable bat habitat in areas where impacts were predicted from the Project such as habitat loss which may cause habitat severance. Where possible, the Transect Routes were designed to incorporate a range of different habitat features along their length, this included areas with potentially important bat flight-lines, and areas considered suitable for foraging and/or roosting bats.

2.3.5 A fifth Transect Route was initially planned (Transect 3), however this route could not be included in the survey work due to lack of access permission. This area was however included in the static detector surveys (see **Section 2.3.42**).

2.3.6 Where access permitted, Transects 1, 2, 4 and 5 were visited once per month (September and October 2021, and April 2022 to September 2022 inclusive) with an additional pre-dawn survey visit undertaken within the same 24-hour period in July 2022. In cases where a Transect had been visited in September 2021 the transect was not visited again in September 2022.

2.3.7 Dusk surveys commenced at sunset and finished once the surveyors walked two circuits of the transect route (lasting approximately two to three hours after sunset and therefore in line with BCT Good Practice Guidance (Bat Conservation Trust, 2016)); while pre-dawn surveys commenced two hours prior to sunrise and finished at sunrise. During each survey visit, the surveyor recorded the number of passes of each bat species and, where it could be determined and the type of activity heard (e.g. foraging or social calls).

2.3.8 While walking along the transect route, surveyors watched for bat activity (light levels permitting) and monitored bat calls using Elekon Batlogger M detectors, with later analysis of bat calls to aid species identification.

2.3.9 For the purpose of this assessment, the term 'pass' will be used to discuss the recordings of bat activity, where a pass is defined as the sequence of ultrasonic vocalisations emitted by a bat during foraging or commuting activity. The term 'call' will be used to refer to the general sonic parameters of the vocalisations, for example in discussing the difficulty in distinguishing the calls of one species from another,

2.3.10 Survey visits started at a different location on each visit to allow for variations in activity along the transect route at different times of the evening. Surveys dates, times and environmental conditions are set out in **Table 2.2**.

Table 2.2 – Manual transect surveys – dates, times and weather conditions

Date	Start/End Time	Sunset/Sunrise	Weather Conditions at start of survey
Transect 1			
12 October 2021	18:15/20:35	18:15	Temperature: 15ºC; Wind: calm; Rain: none; Cloud Cover: 100%
26 April 2022	20:26/22:44	20:26	Temperature: 8ºC; Wind: calm; Rain: none; Cloud Cover: 85%
30 May 2022	21:23/23:44	21:23	Temperature: 10ºC; Wind: calm; Rain: none; Cloud Cover: 80%
23 June 2022	21:41/00:03	21:41	Temperature: 17.5ºC; Wind: calm; Rain: light; Cloud Cover: 80%
20 July 2022	21:29/00:15	21:22	Temperature: 20ºC; Wind: calm; Rain: none; Cloud Cover: 95%
21 July 2022	03:01/05:21	05:01	Temperature: 18ºC; Wind: calm; Rain: none; Cloud Cover: 100%
23 August 2022	20:16/22:10	20:16	Temperature: 20ºC; Wind: calm; Rain: none; Cloud Cover: 40%
12 September 2022	19:30/21:50	19:30	Temperature: 17ºC; Wind: light; Rain: none; Cloud Cover: 40%

Date	Start/End Time	Sunset/Sunrise	Weather Conditions at start of survey
Transect 2			
27 September 2021	18:52/21:17	18:52	Temperature: 12ºC; Wind: calm; Rain: none; Cloud Cover: 50%
13 October 2021	18:13/20:40	18:13	Temperature: 16ºC; Wind: calm; Rain: none; Cloud Cover: 100%
26 April 2022	20:26/23:12	20:26	Temperature: 8ºC; Wind: calm; Rain: none; Cloud Cover: 0%
31 May 2022	21:24/23:45	21:24	Temperature: 10.5ºC; Wind: calm; Rain: light; Cloud Cover: 95%
22 June 2022	21:41/00:08	21:41	Temperature: 17.5ºC; Wind: light; Rain: none; Cloud Cover: 0%
18 July 2022	21:25/23:46	21:25	Temperature: 22ºC; Wind: calm; Rain: none; Cloud Cover: 10%
19 July 2022	02:57/04:59	04:57	Temperature: 16.5ºC; Wind: calm; Rain: none; Cloud Cover: 15%
23 August 2022	20:16/22:45	20:16	Temperature: 19ºC; Wind: calm; Rain: none; Cloud Cover: 50%
Transect 4			
27 September 2021	18:52/21:00	18:52	Temperature: 14ºC; Wind: light; Rain: none; Cloud Cover: 40%
13 October 2021	18:14/20:49	18:14	Temperature: 14ºC; Wind: variable from calm to moderate; Rain: none; Cloud Cover: 90%
26 April 2022	20:27/22:34	20:27	Temperature: 7ºC; Wind: calm; Rain: none; Cloud Cover: 10%
24 May 2022	21:14/23:32	21:14	Temperature: 8ºC; Wind: calm; Rain: none; Cloud Cover: 5%
23 June 2022	21:41/23:42	21:42	Temperature: 19ºC; Wind: calm; Rain: none; Cloud Cover: 90%
20 July 2022	21:22/23:33	21:22	Temperature: 19.5ºC; Wind: light; Rain: none; Cloud Cover: 100%
21 July 2022	02:59/05:01	05:01	Temperature: 17.5ºC; Wind: light; Rain: light; Cloud Cover: 100%
23 August 2022	20:16/22:50	20:16	Temperature: 12ºC; Wind: light; Rain: none; Cloud Cover: 0%

Date	Start/End Time	Sunset/Sunrise	Weather Conditions at start of survey
Transect 5			
29 September 2021	18:47/20:47	18:47	Temperature: 10.5ºC; Wind: moderate; Rain: none; Cloud Cover: 25%
14 October 2021	18:11/20:05	18:11	Temperature: 14ºC; Wind: moderate; Rain: none; Cloud Cover: 80%
31 May 2022	21:23/23:32	21:23	Temperature: 10ºC; Wind: calm; Rain: none; Cloud Cover: 75%
23 June 2022	21:47/00:09	21:41	Temperature: 18ºC; Wind: calm; Rain: none; Cloud Cover: 0%
20 July 2022	21:22/23:22	21:22	Temperature: 18.5ºC; Wind: calm; Rain: none; Cloud Cover: 95%
21 July 2022	03:01/05:01	05:01	Temperature: 17.5ºC; Wind: light; Rain: light and sporadic; Cloud Cover: 100%
25 August 2022	20:14/22:08	20:14	Temperature: 19ºC; Wind: light; Rain: none; Cloud Cover: 0%

Static monitoring

2.3.11 BCT Good Practice Guidance (Bat Conservation Trust, 2016) states that the following level of static monitoring survey effort should be undertaken at sites that have been assessed as having Moderate suitability to support foraging and commuting bats:

- Static bat detectors (the 'static detectors') to be deployed at two locations per transect, with data to be collected on five consecutive nights per month (April to October inclusive) in appropriate weather conditions for bats.

2.3.12 Therefore, two static detectors (Wildlife Acoustics Song Meter SM4) labelled as 'a' and 'b' respectively, were deployed on the four walked Transect Routes giving eight static detector locations overall. These static detector locations are referenced as Static 1a, 1b, 2a, 2b, 4a, 4b, 5a and 5b respectively, and are shown in **Figure 8.22, Volume 5, Document 5.4.8**.

2.3.13 In addition, six further static detectors were placed at locations which, while not on Transect Routes, were areas of suitable bat habitat which may be impacted by the Project. As shown on **Figure 8.22, Volume 5, Document 5.4.8**, these further static locations are labelled 3a, 3b, 6a, 6b, 7a and 8a; with a total 14 of static detectors deployed. Descriptions of the static detector locations are shown in **Annex 8H.1**. If a static detector had been deployed in September 2021, the survey was not repeated at this same location in September 2022. Dates of static detector deployment are shown in **Table 2.3.**

2.3.14 Static detectors were set to record bat passes continuously from 30 minutes before sunset to 30 minutes after sunrise for a minimum of ten consecutive nights per month (September to October 2021 and April to September 2022). Of these ten nights, a consecutive block of five nights was then chosen for analysis. The five nights were

chosen based on the prevailing weather conditions being suitable on those nights for optimum surveys results. Suitable weather for bats surveys is considered to be as follows:

- No strong wind;
- Sunset temperatures at least 10ºc; and
- Little to no rain.

2.3.15 Weather recordings were taken from a weather station adjacent to the Order Limits[8] full details of weather conditions experienced during static detector survey work are provided in **Table E.2, Annex 8H.1**.

Table 2.3 – Dates of static monitoring data collection

Static	September 2021	October 2021	April 2022	May 2022	June 2022	July 2022	August 2022	September 2022
1a	24 to 28	03 to 07	20 to 24	24 to 28	05 to 10	01 to 05	23 to 27 July	No survey
1b	No survey	21 to 25	No survey	No survey	No survey	08 to 12	01 to 05	No survey
2a	24 to 28	21 to 25	20 to 24	09 to 14	09 to 13	27 June to 01 July	01 to 05	No survey
2b	24 to 28	21 to 25	20 to 24	09 to 13	09 to 13	08 to 12	08 to 12	No survey
3a	No survey	21 to 25	20 to 24	24 to 28	09 to 13	08 to 12	08 to 12	01 to 05
3b	No survey	21 to 25	20 to 24	24 to 28	09 to 13	08 to 12	08 to 12	02 to 06
4a	24 to 28	21 to 25	20 to 24	02 to 06	24 to 28	08 to 12	08 to 12	No survey
4b	24 to 28	03 to 07	20 to 24	24 to 28	09 to 13	08 to 12	08 to 12	No survey
5a	No survey	No survey	No survey	24 to 28	09 to 13	08 to 12	08 to 12	02 to 06
5b	24 to 28	21 to 25	20 to 24	24 to 28	09 to 13	08 to 12	08 to 12	No survey
6a	24 to 28	21 to 25	20 to 24	24 to 28	09 to 13	14 to 18	10 to 14	No survey
6b	No survey	No survey	20 to 24	24 to 28	09 to 13	08 to 12	08 to 12	02 to 06
7a	24 to 28	21 to 25	20 to 24	06 to 10	09 to 13	No survey	08 to 12	No survey
8a	24 to 28	21 to 25	No survey	No survey	No survey	No survey	No survey	No survey

[8] Weather Underground (2022). Weather Forecast (online) (Accessed October 2022)

Roost identification in trees

Preliminary ground level roost assessment (GLRA) of trees

2.3.16 Trees[9] likely to be subject to direct effects within the Order Limits (based on initial tree impact data) were assessed by GLRA surveys from May to June 2022 and categorised according to their level of suitability to support roosting bats in accordance with BCT good practice guidelines (Bat Conservation Trust, 2016). A second phase of GLRA surveys at additional trees were undertaken from November 2022 to February 2023 based on updated tree impact data as detailed in the final arboricultural assessment (**Appendix 3I Arboricultural Impact Assessment, Volume 5, Document 5.3.3I**).

2.3.17 The categories of suitability are summarised in **Table 2.4**. During the inspection, information was collected in respect of the following:

- Tree age;
- Tree species;
- Potential Roosting Features (PRF) suitable for use by bats; and
- Evidence of use of the tree by roosting bats, such as droppings, straining, or actual bats.

2.3.18 Surveys were led by a surveyor holding a Natural England (NE) bat survey licence (Level 1 or 2) and utilised close-focussing binoculars and a high-powered torch. Survey dates and environmental conditions are set out in **Table 2.4**.

Table 2.4 – Criteria for determining potential bat roost suitability of trees (from Collins, 2016)

Potential roost suitability	Criteria
Low	A tree of sufficient size and age to contain PRFs but with none visible from the ground or features visible but with very limited roosting potential.
Moderate	A tree with one or more PRFs which could be used by bats due to the size, shelter, protection, and conditions of the feature; but with the surrounding habitat unlikely to support a roost of high conservation status.
High	A tree with one or more PRFs that are suitable for use by large numbers of bats on a regular basis, and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Confirmed	A tree with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.

[9] No buildings or structures will be impacted by the Project and as such no surveys have been required to inform the assessment.

Table 2.5 – Ground Level Roost Assessment survey visits – dates, times and weather conditions

Date	Survey type	Weather conditions
10 May to 1 June 2022	GLRA of trees	Temperature ranged between 13-20ºC for the duration of the surveys. Rain was light/intermittent except for heavy rain on 31 May. Wind was light to moderate for the majority of the surveys. Cloud Cover varied from 20-80%.
22 November to 21 February 2023	GLRA of trees	Temperature ranged between -2 to 9ºC for the duration of the surveys. Rain was infrequent and when present comprised light, intermittent showers. Wind was gentle to moderate for the majority of the surveys. Cloud cover ranged from 0-100%.

Aerial tree climbing inspections

2.3.19 Following the initial GLRA from May to June 2022, 58 trees were taken forward for aerial tree climbing inspections using ropes, harness, and where appropriate, ladders. An additional 11 trees were added following a change to Project, bringing the total to be climbed to 69. The purpose of the climbs was to search for bats or evidence of bats such as scratches, smoothing of surfaces, staining, bat droppings, audible squeaking or insect remains. Trees climbed met the following criteria:

- Assessed as having Moderate or High suitability to support roosting bats;
- Likely to be impacted by the Project;
- Safe to climb; and
- Could not be fully inspected from the ground (due to their height and location).

2.3.20 The surveys comprised aerial inspections of PRFs using endoscope and high-powered torch and were carried out by experienced and suitably licensed surveyors from RSK. The surveyors licence numbers were as follows:

- NE licence number 2015-11883-CLS-CLS;
- 2017-21708-CLS-CLS; and
- 2015-18157-CLS-CLS.

2.3.21 Two aerial inspection surveys were conducted on 43 trees during July and August 2022 and a single climb on 11 trees during September 2022. Fifteen trees could not be climbed safely.

2.3.22 Following the aerial tree climbing inspections, the trees were re-categorised (again using the criteria in **Table 2.4**). Trees which could not be climbed retained their original suitability to support roosting bats as determined during the GLRA.

2.3.23 In the absence of defined methodology for tree climbing roost inspections, two climbs were conducted initially to maximise opportunities for roost detection. However, as no confirmed evidence of roost occupation was identified during any climbs during the period July to August, and as there was minimal change in roost suitability categorisation between the first and second climbs (only one tree had increased suitability from moderate to high due to removal of nesting material in cavity between

climbs), a single inspection climb was carried out at remaining 11 trees during September in the interests of taking a robust and pragmatic approach.

2.3.24 Following GLRA of additional trees during November 2022 to February 2023, a further 85 trees were taken forward for a single aerial tree-climbing inspections during February to April 2023.

2.3.25 The surveys were carried out by experienced surveyors and included licenced and/or accredited individuals from WSP. The surveys were undertaken under the following Natural England licence numbers:

- 2015-7496-CLS-CLS; and
- 2019-39210-CLS-CLS.

2.3.26 Of the 85 trees identified for aerial inspection, 43 were subject to aerial tree-climbing inspections, 37 were assessed from the ground, and 5 were unable to be accessed.

2.3.27 Where accessible trees could not be climbed due to health and safety constraints, i.e. due to tree health or condition, and features were not able to be inspected from ground level with an endoscope, an updated GLRA was undertaken to provide an updated baseline from the initial GLRA. This methodology was also applied for trees where not all features were able to be assessed aerially during the climb, for example due to health and safety constraints at particular branches. Where access was not permitted, this has been highlighted in **Annex 8H.3 Aerial tree climbing inspection limitations** and trees retained the suitability level determined during the initial GLRA.

Data processing and analysis

Transect bat pass analysis

2.3.28 Analysis of bat recordings was carried out with reference to published guidance to aid species identification[10,11].Transect bat passes were analysed using the BatExplorer software program and assigned into species or species groups depending on the quality of the recording and confidence of identification. The following species and species groups were used. Note the following assessment uses English names only; with the Latin names for bat species are contained in **Annex 8H.2**:

- Common pipistrelle;
- Soprano pipistrelle;
- Nathusius' pipistrelle;
- Soprano/Common pipistrelle;
- Common pipistrelle/Nathusius' pipistrelle;
- Noctule;
- Serotine;
- Leisler's bat;

[10] J. Russ, J (2012). British Bat Calls a Guide to Species Identification. Pelagic Publishing; Exeter.
[11] N. Middleton, A. Froud and K. French (2014). Social calls of the bats of Britain and Ireland. Pelagic Publishing; Exeter.

- NSL (noctule/serotine Leisler's bat);
- *Nyctalus* sp. (noctule or Leisler's bat);
- *Myotis* sp. (bat species in the genus Myotis);
- Long-eared bat;
- *Myotis sp.* or long-eared bat*;* and
- Bat sp. (bat passes that could not be ascribed to a species group).

Static detector survey analysis

2.3.29 Due to the large volume of static data, the manual identification of records returned from the static detector surveys was not considered practicable. Instead, the British Trust for Ornithology's (BTO) Acoustic Pipeline auto-identification software was used with additional manual quality auditing applied.

2.3.30 After Acoustic Pipeline was supplied with the data, results were returned with a suggested species identification for each bat pass together with probability rating (0-1) describing the confidence of that species identification. Following this, data was split into species folders and manual auditing was undertaken to determine the error rates of the Acoustic Pipeline process. This was completed as follows:

- Recordings with probabilities greater than 0.5 (>50%) were checked until an error-rate asymptote was reached, and the auditors had confidence that auditing more files would not affect the rate;
- A sample of recordings with confidence lower than 0.5 (<50%) was checked and an error rate calculated; and
- A random sample of noise/no ID files was checked, and an error rate calculated.

2.3.31 Certain species and species groups are known to be difficult to identify with confidence. Some common sound analysis issues include the following:

- Calls of all *Myotis* species are extremely similar in many cases and can be difficult if not impossible to tell apart in many instances;
- Calls of noctule and Leisler's bat can often overlap, and depending on the quality of the call, both can be confused with serotine;
- Calls of long-eared species overlap and are often hard to capture due the low output and difficult to analyse as a result;
- Nathusius' pipistrelle calls can overlap with the calls of the far more ubiquitous common pipistrelle.

2.3.32 When the Acoustic Pipeline passes were checked, the error rate for *Myotis* sp. passes when those passes were assigned to species at greater than 50% confidence were found to be extremely low (0.13%). In cases where they were assigned at less than 50% confidence the error rated were still extremely low (1.44%).

2.3.33 For *Nyctalus sp.*, the error rate for passes assigned to species level at greater than 50% confidence was extremely low for *Nyctalus sp*. (0.63%). The error rate for the passes with less than 50% confidence is much higher (14.4%), with a small proportion of the non-*Nyctalus sp.* passes appearing to be small mammals, brown long-eared bats, or common pipistrelle social calls.

2.3.34 Based on the above, it was necessary to set an internal confidence threshold based on the probability assigned by Acoustic Pipeline. The thresholds chosen are detailed in **Table 2.6**.

Table 2.6 – Thresholds for assigning species to species of species groups

Species label assigned to passes through Acoustic Pipeline	If Probability level	Then assigned as
Common pipistrelle	>50%	Common pipistrelle
	<50%	Common pipistrelle/Soprano pipistrelle
Soprano pipistrelle	>50%	Soprano pipistrelle
	<50%	Common pipistrelle/Soprano pipistrelle
Nathusius pipistrelle	>80%	Nathusius' pipistrelle
	<80%	Common pipistrelle/Nathusius' pipistrelle
Noctule	>75%	Noctule
	<75%	*Nyctalus* sp.
Serotine	>75%	Serotine
	<75%	Noctule/Serotine/Leisler's
Leisler's	>75%	Leisler's
	<75%	*Nyctalus sp.*
Natterer's bat	N/A	*Myotis* sp.
Daubenton's bat		
Whiskered bat		
Brandt's bat		
Bechstein's		
Brown long-eared bat	>75%	Brown long-eared bat
	<75%	*Myotis* sp./Long-eared bat

2.3.35 A single identification of an Alcathoe bat with a probability of less than 0.2 was made by the BTO pipeline; however, this could not be confirmed and due to the location and habitats present within Order Limits there is a low probability of this species being present.

2.3.36 Where records from the detector surveys were not identified to species level during the sound analysis process due to the overlapping call parameters of some species, records were identified to genus/species group.

2.3.37 Whilst it is very difficult to distinguish between the two British species of long-eared bat through flight observations and sound recordings alone; grey long-eared bat have not been recorded in this region of England, therefore all long-eared records were confirmed to species level are considered to relate to brown long-eared bat.

Ecobat

2.3.38 Ecobat is an online software tool which allows comparison of bat of relative bat activity levels. It facilitates the interpretation of the 'raw numbers' to allow a more contextual analysis of the data and a more accurate assessment of what constitutes 'High' and Low levels of bat activity. The online tool was down for maintenance at the time this report was being prepared. Therefore the levels of bat activity were based on professional judgement.

First and last recorded bat

2.3.39 The first bat of each species or species group was specifically noted on dusk surveys, while the last bat was noted on dawn surveys. On dusk surveys, the closer in time to sunset a bat is recorded, the greater the chance that the bat has emerged from a nearby roost. On dawn surveys, the closer in time to sunrise a bat is recorded, the greater the chance it is already near its roost.

2.3.40 Based on Bat Conservation Trust, 2016 guidance the first/last bat was considered a potential roost record for:

- *Pipistrellus*, *Nyctalus* and serotine bats where they were recorded within half an hour after sunset or before sunrise; and
- *Myotis*, barbastelle and long-eared species where they were recorded within one hour after sunset or before sunrise.

2.3.41 These periods encompass the typical emergence time for the species and, thus where bats are recorded in this period, it may indicate a roost situated in the locality.

Limitations and Constraints

Roost identification in trees

2.3.42 Following the completion of the bat survey work, additional areas of vegetation that could potentially be affected by the Project were identified and as such have not been surveyed and included within this report. Any trees in these areas that have the potential to support roosts (of a size and age which could support PRF's) will be subject to a GLRA following the same methods detailed within this report for roost identification in trees (**Section 2.3.43**). Any trees assessed to have moderate or high suitability to support roosting bats will be subject to a single aerial inspection over winter 2022/2023, and where considered necessary, further tree climbs and/or emergence/re-entry surveys in 2023 would be undertaken. The results of the surveys will be provided during the DCO examination phase in order to confirm the suitability of the proposed embedded environmental measures and whether the conclusions in the ES remain unchanged.

Climbed Tree Inspections

2.3.43 During the initial aerial tree climbing inspections from July to September 2022, thirty-two trees could not be surveyed fully or at all as a result of climber safety, access

restrictions, or complex cavities where it was not possible to fully inspect the feature due to endoscope length and manipulation limits. Ash dieback was noted as a particularly prevalent issue throughout the Order Limits, thereby restricting the number of trees that could be safely climbed. Full details on these constraints are detailed in **Annex 8H.3 Aerial tree climbing inspection limitations.**

2.3.44 During the additional tree climbing inspections from February to April 2023, 22 of the 85 trees classed as having Moderate or High suitability to support roosting bats (based on GLRAs) were not able to be subjected to an aerial tree-climbing inspection due to health and safety concerns or access issues.

2.3.45 Of these 22 trees, five trees (TR167, TR203, TR225, TR226, and TR415) were not able to be climbed due to refusal of access. In addition, single PRFs in both TR173 and TR176, and two PRFs in TR311, could not be fully inspected during the climbs due to limited safe access points at their locations; and a single PRF in TR444 could not be fully inspected due to the tight angle of the cavity. Precautionary assessments of roost potential were made at these trees. Further details of individual constraints and limitations are provided by tree in **Annex 8H.3 Aerial tree climbing inspection limitations**.

2.3.46 Nineteen additional trees were not surveyed by aerial inspection as they were able to be fully inspected from ground level, either with an endoscope or by undertaking an updated GLRA.

Transect Surveys

2.3.47 No access was permitted to Transect 1 in September 2021, the September survey for this transect was therefore deferred until September 2022. Although the results are not directly comparable with the results of Transects 2, 4 and 5 for September 2021, this is not considered to be a significant constraint as a complete season of data has been collected for all transects. The April 2022 survey for Transect 5 could not be competed due to lack of access.

2.3.48 A fifth Transect Route was planned (Transect 3), however this route could not be included in the survey work due to lack of access permission. This area was however included in the static detector surveys (static detectors 3a and 3b).

Static detector surveys

2.3.49 Land access was not available for the following surveys:

- Static 1b: September 2021;
- Static 3a: September 2021;
- Static 3b: September 2021;
- Static 5a: September/October 2021 and April 2022;
- Static 6b: September/October 2021;
- Static 7a: July 2022; and
- Static 8a: April to August 2022.

2.3.50 Where access limited static detector data collation at 3a (September 2021), 3b (September 2021), 5a (September 2021), and 6b (September 2021); surveys were instead completed in September 2022 at these locations. The lack of data from

September 2021 at these locations is therefore not a major constraint. Survey data is missing from Static 1b in April, May, June and September 2022 due to theft of the detector or lack of access. The missing data from 1b and 5a (October and April 2022), 6b (October 2021), 7a (July 2022) and 8a (April to August) presents a data gap, however, in terms of the overall assessment, it is concluded that sufficient data has been gathered from other survey months across the Order Limits to allow robust conclusions to be made to inform an impact assessment.

Personnel

2.3.51 The programme of surveys was led by National Grid Electricity Transmission plc's ("National Grid") appointed consultant Principal Ecologist (Natural England (NE) Bat Class 1 Licence registration no. 2017-32182-CLS-CLS), who has over seven years' experience in ecological consultancy and bat surveys. The survey lead was assisted by suitably qualified and experienced ecologists.

3. Results

3.1 Desk study

Designated sites

3.1.1 There are no internationally/nationally important sites that are designated for bat conservation within the Order Limits or within 10km (internationally designated sites) or 5km (nationally designated sites) of it.

Species records

3.1.2 Eight species of bats were recorded within 5km of the Order Limits: Brandt's bat, brown long-eared, common pipistrelle, soprano pipistrelle, Daubenton's bat, Leisler's bat, noctule and whiskered bat. The most frequently returned were for soprano pipistrelle, followed by brown long-eared and common pipistrelle, and all except whiskered bat were closer than 2km from the Order Limits.

3.1.3 Seventeen bat roosts were recorded 2-5km from Order Limits comprising those from soprano pipistrelle, brown long-eared bat, common pipistrelle, whiskered bat and unidentified bat species. Existing and expired European Protected Species (EPS) mitigation licences were also recorded within 5km of the Order Limits indicating the presence of roosts for common pipistrelle, soprano pipistrelle, brown long-eared bats, Natterer's bat, Daubenton's bat, and whiskered bat. Details of local bat records are provided in **Table 3.1.** Records of recent EPSM are shown in **Table 3.2**.

Table 3.1 –Bat activity and roost records within 5km of the Site from past 10 years

Species	No. of records	Closest record	Protection*	Other* conservation criteria
Brandt's bat	1	~1.60km west	HR, WCA	Species in Local Biodiversity Action Plan (LBAP)
Brown long-eared bat	18	~0.60m north-west	HR, WCA	LBAP
Common pipistrelle	17	~0.27km south-west	HR, WCA	LBAP
Daubenton's bat	2	~0.64km south-east	HR, WCA	LBAP
Leisler's bat *(Nyctalus leisleri)*	1	~1.60km west	HR, WCA	LBAP
Noctule bat (*Nyctalus noctul*a)	12	~60m north-west	HR, WCA	LBAP

Species	No. of records	Closest record	Protection*	Other* conservation criteria
Pipistrelle species	17	~60m north-west	HR, WCA	LBAP
Soprano pipistrelle (*Pipistrellus pygmaeus*)	25	~60m north-west	HR, WCA	LBAP
Unidentified bat	11	~0.30km south	HR, WCA	LBAP
Additional bat roost records 2-5km from Order Limits (soprano pipistrelle, brown long-eared bat, common pipistrelle, whiskered bat and unidentified bat species)	17	~2.39km west	HR, WCA	N/A

*HR= Conservation of Habitats and Species Regulations 2017, WCA= Wildlife and Countryside Act 1981, LBAP=Local Biodiversity Action Plan

Table 3.2 – EPSL licence returns records from past ten years

Year	Grid reference	Distance and direction from the Order Limits	Notes
2010-2012	SE 4730 4649	~0.55km south-west	EPSM2010-2017; brown long-eared bat; destruction of a resting place
2017-2018	SE 5771 5871	~0.98km east	2017-31243-EPS-MIT; Brandt's, brown long-eared bat, common pipistrelle, soprano pipistrelle, whiskered bat impact on breeding site; damage of breeding site; destruction of resting place
2012-2014	SE 4751 2812	~1.21km south-west	EPSM2012-5102; common pipistrelle; destruction of a resting place
2012-2014 (covers two licences)	SE 4240 4211	~1.41km west	EPSM2013-6199; EPSM2012-4628; soprano pipistrelle; destruction of resting place
2017	SE 5080 5012	~1.55km east	2017-29761-EPS-MIT; common and soprano pipistrelle; impact on breeding site; damage of breeding site; damage of resting place; destruction of breeding site; destruction of a resting place

Year	Grid reference	Distance and direction from the Order Limits	Notes
2013-2015	SE 4710 2781	~1.60km south-west	EPSM2013-6358; common and soprano pipistrelle and brown long-eared bat; destruction of a resting place
2014-2021 (covers three licences)	SE 4480 4493	~2.54km north-west	2014-1487-EPS-MIT; 2014-1487-EPS-MIT-1; 2014-1487-EPS-MIT-2; brown long-eared, common pipistrelle, Natterer's bat, soprano pipistrelle and Daubenton's bat; destruction of resting place
2013-2015	SE 4500 3087	~1.99km west	EPSM2012-5319; soprano pipistrelle and brown long-eared bat; destruction of a resting place
2015-2020	SE 4510 4611	~2.34km north-west	2014-5878-EPS-MIT; common pipistrelle; destruction of a resting place
2016-2021	SE 4487 4630	~2.59km north-west	2016-24939-EPS-MIT; 2016-24939-EPS-MIT-1; common and soprano pipistrelle; damage of resting place; destruction of resting place
2015-2019	SE 5059 3670	~3.43km east	2014-4918-EPS-MIT; common pipistrelle; destruction of a resting place
2013-2014	SE 4471 2800	~3.43km south-west	EPSM2011-2852; common pipistrelle, brown long-eared bat and Daubenton's bat; destruction of a resting place
2013-2014	SE 6039 5220	~3.48km west	EPSM2013-6327; common pipistrelle; destruction of a resting place
2017-2030	SE 6001 5190	~3.94km west	2017-31011-EPS-MIT; common pipistrelle; impact on breeding site; damage of breeding site; destruction of a resting place
2014-2016	SE 4618 5532	~4.02km north-west	2014-164-EPS-MIT; brown long-eared bat, common pipistrelle and Natterer's bat; destruction of a resting place
2012-2014	SE 6230 5892	~4.08km east	EPSM2012-4802; common pipistrelle and brown long-eared bat; destruction of a resting place
2014-2020	SE 4350 2891	~4.08km south-west	2014-4418-EPS-MIT; brown long-eared bat, common pipistrelle, Natterer's bat and soprano pipistrelle; impact on a breeding site; damage of a breeding site; damage of a resting place; destruction of a resting place
2013-2014	SE 6150 5550	~4.20km north-west	EPSM2013-5983; brown long-eared bat; destruction of a resting place

Year	Grid reference	Distance and direction from the Order Limits	Notes
2010-2011	SE 5288 2668	~4.20km south-east	EPSM2009-1563; brown long-eared bat; impact on a breeding site; destruction of a breeding site; destruction of a resting place
2012	SE 5150 4173	~4.41km south-east	EPSM2011-3498; common pipistrelle and Natterer's bat; destruction of a resting place
2014-2015	SE 5371 4801	~4.44km east	2014-901-EPS-MIT; common pipistrelle; Natterer's bat and soprano pipistrelle; destruction of a resting place
2010-2012	SE 6098 5612	~4.45km east	EPSM2010-1693; common pipistrelle; destruction of a resting place
2017	SE 5379 4778	~4.51km east	2016-27078-EPS-MIT; common pipistrelle and Natterer's bat; 2027-2017; destruction of a resting place
2016	SE 5849 6472	~4.59km north	2016-26617-EPS-MIT; common pipistrelle and Natterer's bat; impact on breeding site; damage of breeding site; destruction of resting place
2013-2018	SE 5409 4852	~4.85km east	EPSM2013-6433; common pipistrelle, soprano pipistrelle, brown long-eared bat, whiskered bat and Natterer's bat; destruction of breeding site; destruction of a resting place

3.2 Field survey

Habitat assessment

3.2.1 For a full description of habitats within the survey area see **Appendix 8B - Extended Phase 1 habitat report, Volume 5, Document 5.3.8B**.

Habitat features of Low suitability

3.2.2 The dominant habitat type throughout the survey area is arable land. It is in various states of management and supports a variety of crops including corn and potato. Localised patches of amenity grassland and improved grassland are present associated with pasture fields and field margins. The land parcel east of the field that pylon YN002 is located within contains coniferous plantation woodland managed commercially as Christmas tree farms. Another area of coniferous plantation is present south-east of XC455 with pines planted in lines. Scattered elder shrub is present throughout the woodland with ground flora dominated by ramsons and common nettle. Dense and scattered scrub is frequent around the perimeter of agricultural/grassland field boundaries. There are also relatively extensive areas of dense scrub interspersed throughout the survey area, particularly in association with disturbed habitats.

3.2.3 Arable land, amenity and improved grasslands, and scattered scrub are of negligible suitability to support roosting bats. These habitats are also of low value in terms of the foraging and commuting opportunities they provide due to the lack of floristic diversity and subsequent paucity of invertebrates on offer; and their open and exposed nature, respectively. Coniferous plantations are also usually poor in terms of roosting and foraging opportunities though may facilitate commuting.

Habitat features of Moderate suitability

3.2.4 Parcels of land with immature and semi-mature broadleaved plantation woodland are present and scattered throughout land within the survey area. The majority of plantation woodlands are considered to be small to moderate sized woodlands. Trees have been planted in obvious rows in the majority of the plantations and planting tubes are present within a few of the woodlands. Mixed woodland is present at several other locations. Scattered broadleaved trees are present commonly associated with field boundaries. Poor semi-improved grassland fields occur throughout, as well as areas of neutral semi-improved grassland with a moderate to high diversity of grasses and wildflowers.

3.2.5 Broadleaved woodland is of value to roosting, foraging and commuting bats; though the fact that much if this woodland is planted will likely reduce its value. Trees, even if scattered, are important to bats for the cover they provide during commuting/foraging and to link areas of adjoining habitat meaning bats do don't have to fly in the open. Semi improved grassland and more so the neutral semi-improved grassland is likely to offer foraging resources to bats due to the abundance of invertebrates present in such habitat.

Habitat features of High suitability

3.2.6 There are parcels of semi-natural broadleaved woodland dominated by semi-mature and mature trees throughout the survey area. Hedgerows are common, typically bounding fields. There is a mix of species-rich and species-poor hedgerows, intact and defunct hedgerows, and some hedgerows have trees, all with varying levels of management. Where hedgerows are classed as species-poor they are typically dominated by one or two native woody species. Ponds are present on within the survey area, with the vast majority being less than a hectare in extent. Fifteen watercourses are present, principally the River Ouse, the River Wharfe and Cock Beck.

3.2.7 Broadleaved woodland can provide roosting, foraging and commuting opportunities for bats, while hedgerows are often extremely important as both a foraging and commuting resources. Waterbodies are frequently used by bats both for navigational purposes (using the dense and dark riparian habitat to link to other foraging/roosting areas) and as a foraging resource in of itself due to the frequently high levels of invertebrates present.

Summary

3.2.8 Large areas of open arable land are of limited suitability and at times unsuitable for most species of bats as they provide little in the way of foraging habitat, or linear features/cover for commuting. However, hedgerows along field boundaries, watercourses, and parcels of grassland, woodland and scrub throughout the Survey Area are likely to be used by foraging and commuting bats although these are not unique habitats locally. Areas of habitat which are most suitable for bats occur in places where a range of habitat types coincide to provide a variety of ecotones for commuting and foraging capable of supporting a variety of bat species. For example, habitats

around Healaugh Priory Marsh SINC and Field at Healaugh Manor Farm deleted SINC, and along watercourses such as the River Ouse and The Foss, which include a mix of habitats such as scrub, grassland, hedgerows, treelines, woodland and watercourses/ditches/ponds. Habitat in these locations is considered to have high suitability for commuting and foraging bats, though the majority of habitat within the Order Limits and 50m buffer is considered to have moderate suitability.

3.3 Activity surveys

3.3.1 The following sections detail the results of the manual transect surveys and the static detector surveys. With respect to the definition of a 'bat pass', it should be noted that a single bat may forage near the surveyor many times during a survey, with each pass counted separately. Another bat may produce only a single call (and therefore register as a single bat pass) or may make no call at all. As such, figures pertaining to numbers of bat passes do not necessarily represent actual numbers of bats. They are instead a gauge of activity intended to give an indication of relative levels of bat activity on each transect and between months to allow comparisons to be made.

Manual transect survey

Overview

3.3.2 The following species were confirmed to be using habitats within the Order Limits during the manual transect survey work:

- Common pipistrelle
- Soprano pipistrelle;
- Noctule;
- Serotine;
- *Myotis* species; and
- Brown long eared bat.

3.3.3 Additional species may also have been recorded, where some ambiguous passes were allocated to group rather than species level.

3.3.4 The full results of the transect surveys are listed in **Annex 8H.4**, while **Table 3.3** provides a breakdown of the number of bat passes by each species recorded on each transect. In order to provide a means of comparison, an average number of passes per hour of each species has also been calculated.

3.3.5 Four graphs are then provided in in this document in order to provide a visual breakdown of the transect data. These figures are as follows:

- **Graph 3.1**: Total number of bat passes of each species recorded at each transect;
- **Graph 3.2**: Total bat passes per month (all Transects summed)
- **Graph 3.3**: Total bat passes per month (all Transects summed) of *Pipistrelle* species only; and
- **Graph 3.4**: Total bat passes per month (all Transects summed) of non-pipistrelle species.

3.3.6 In addition, the following figures as contained in **Volume 5, Document 5.4.8** should be consulted in order to assist with the visualisation of the results:

- **Figure 8.23:** Results of Transect Survey: Heat maps
- **Figure 8.24:** Kernel Density (Transects); and
- **Figure 8.25:** Pie Chart (Transects).

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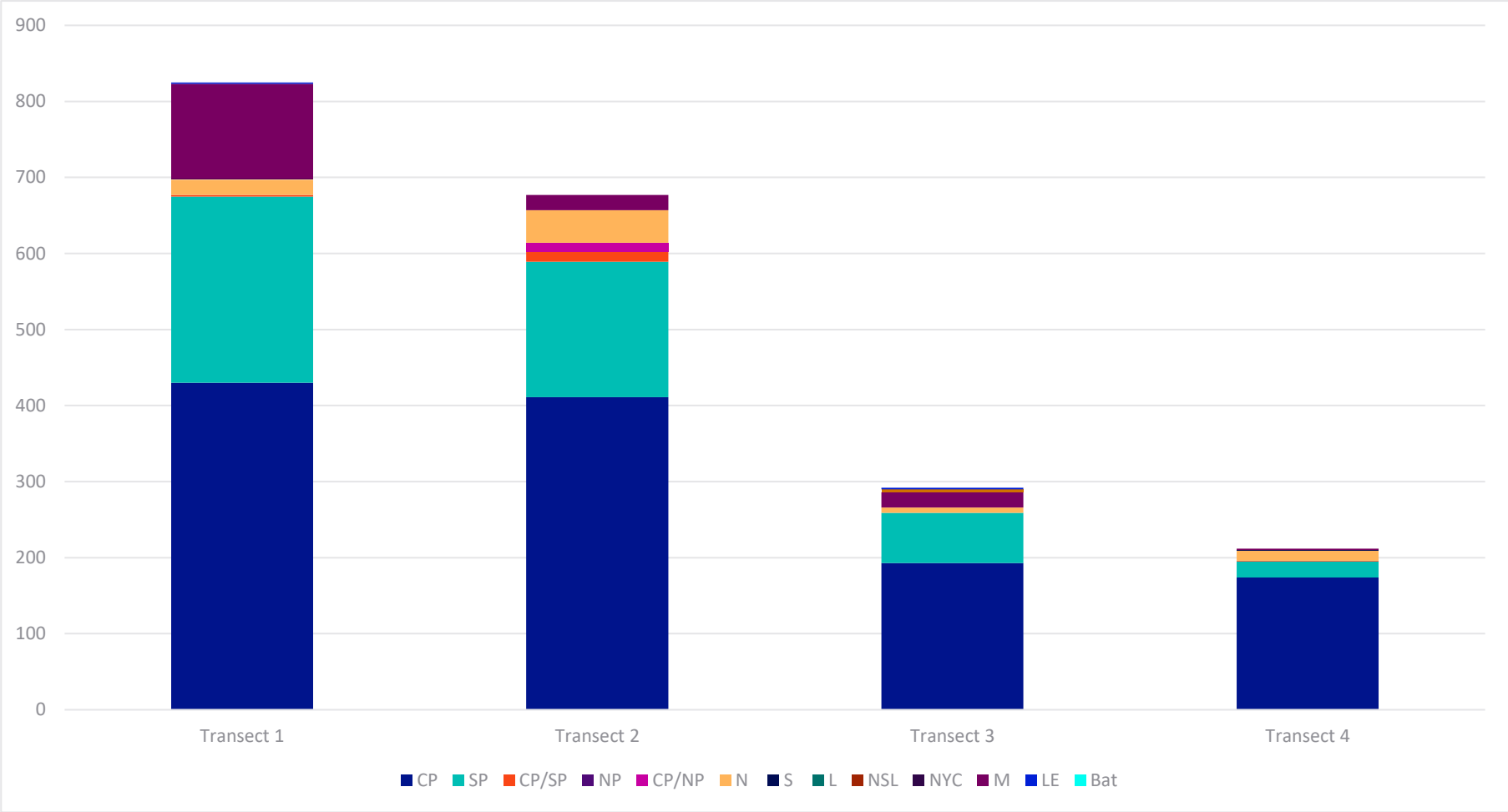
Table 3.3 – Manual transect survey results – Total number of bat passes for all transects (including average number of passes per hour) for each species per month

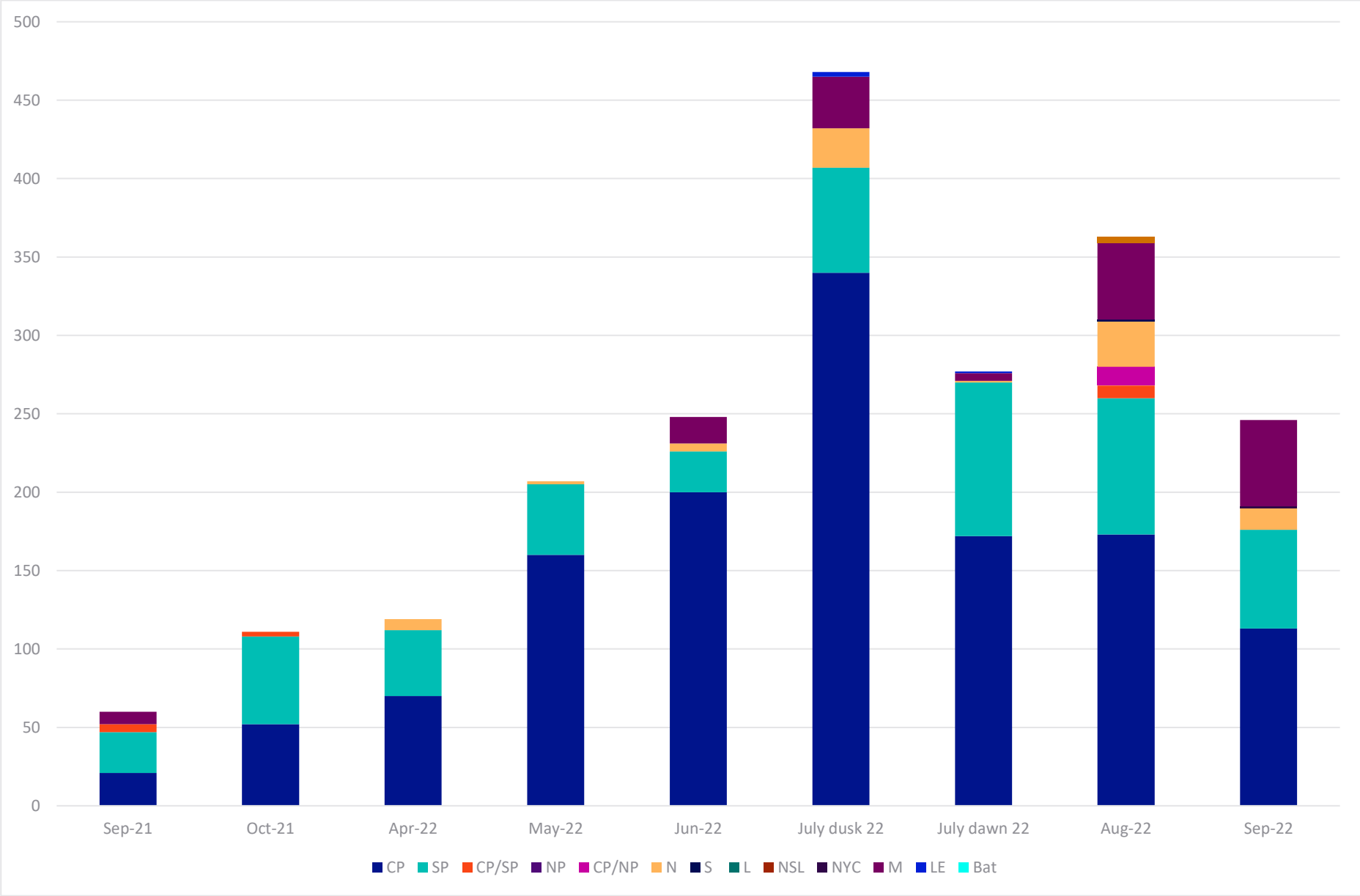
	September 2021	October 2021	April 2022	May 2022	June 2022	July dusk 2022	July dawn 2022	August 2022	September 2022	Total
Species										
Common pipistrelle (CP)	21 (3.5)	52 (8.7)	70 (11.7)	160 (26.7)	200 (33.3)	340 (56.7)	172 (28.7)	173 (28.8)	113 (18.8)	1,301 (27.1)
Soprano pipistrelle (SP)	26 (4.3)	56 (9.3)	42 (7)	45 (7.5)	26 (4.3)	67 (11.2)	98 (16.3)	87 (14.5)	63 (10.5)	510 (85)
CP/SP	5 (0.8)	3 (0.5)	0	0	0	0	0	8 (1.3)	0	16 (2.7)
Noctule	0	0	7 (1.2)	2 (0.3)	5 (0.8)	25 (4.2)	1 (0.2)	29 (4.8)	14 (2.3)	83 (13.8)
Serotine	0	0	0	0	0	0	0	1	0	1 (0.0)
Nyctalus sp.	0	0	0	0	0	0	0	0	1	1 (0.17)
Myotis	8 (1.3)	0	0	0	17 (2.8)	33 (5.5)	5 (0.8)	49 (8.2)	55 (9.2)	167 (22.8)
Brown long-eared	0	0	0	0	0	3	1	0	0	4 (0.7)
Total	60 (10)	111 (18.5)	119 (19.8)	207 (34.5)	248 (41.3)	468 (78)	277 (46.2)	363 (60.5)	246 (41)	**2,099**

Graph 3.1 - Total number of bat passes of each species[12] recorded at each transect

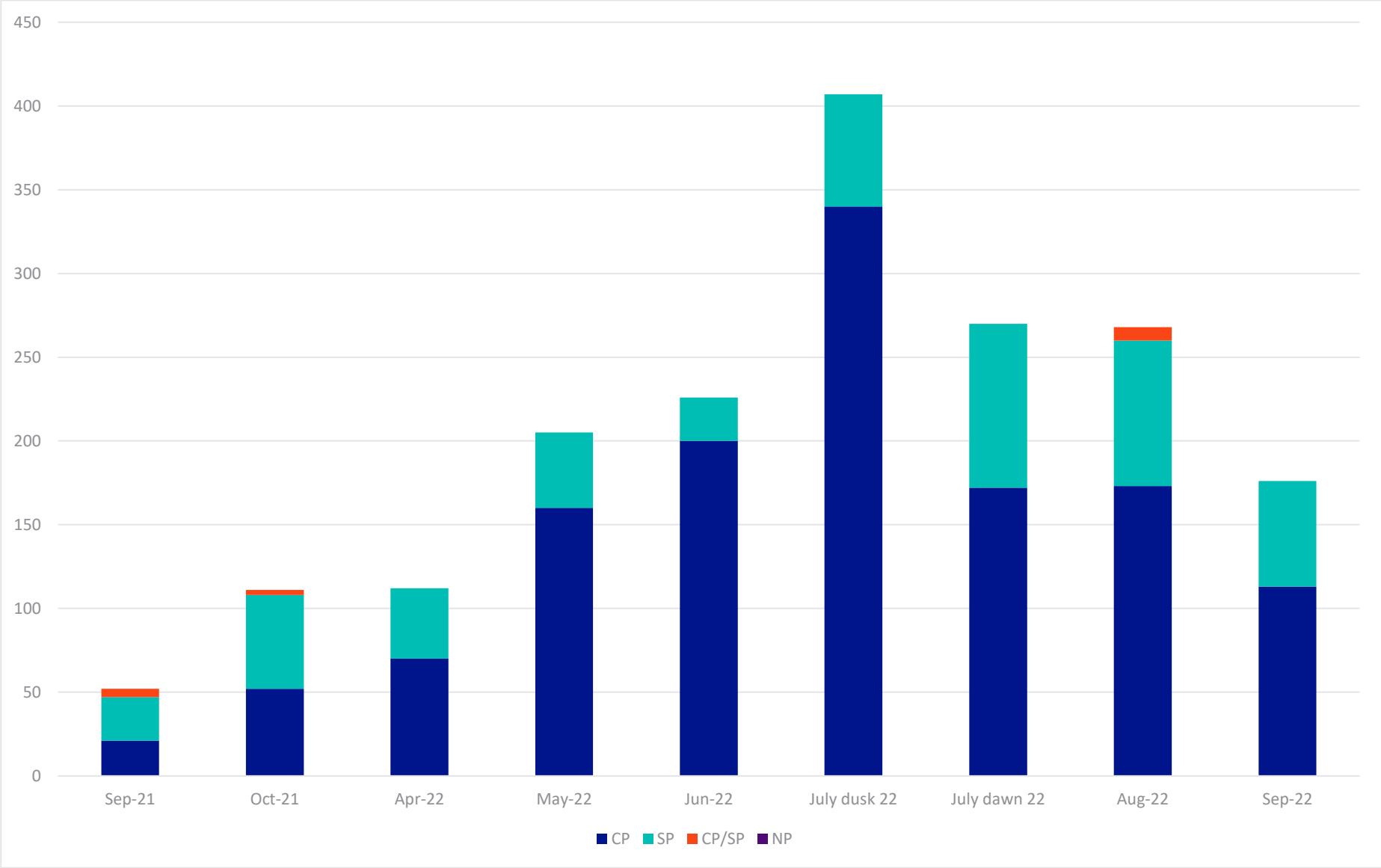


[12]**Species codes:** Species codes: CP = common pipistrelle; SP = soprano pipistrelle; CP/SP = common/soprano pipistrelle; CP/NP = common/Nathusius' pipistrelle; NP=Nathusius pipistrelle, N = noctule, S= serotine, L=Leisler's bat, NSL = noctule/serotine/Leisler's bat; NYC. = noctule/Leisler's bat; M = Myotis sp.; LE = Plecotus sp, Bat. = calls not assigned to a species or species group.

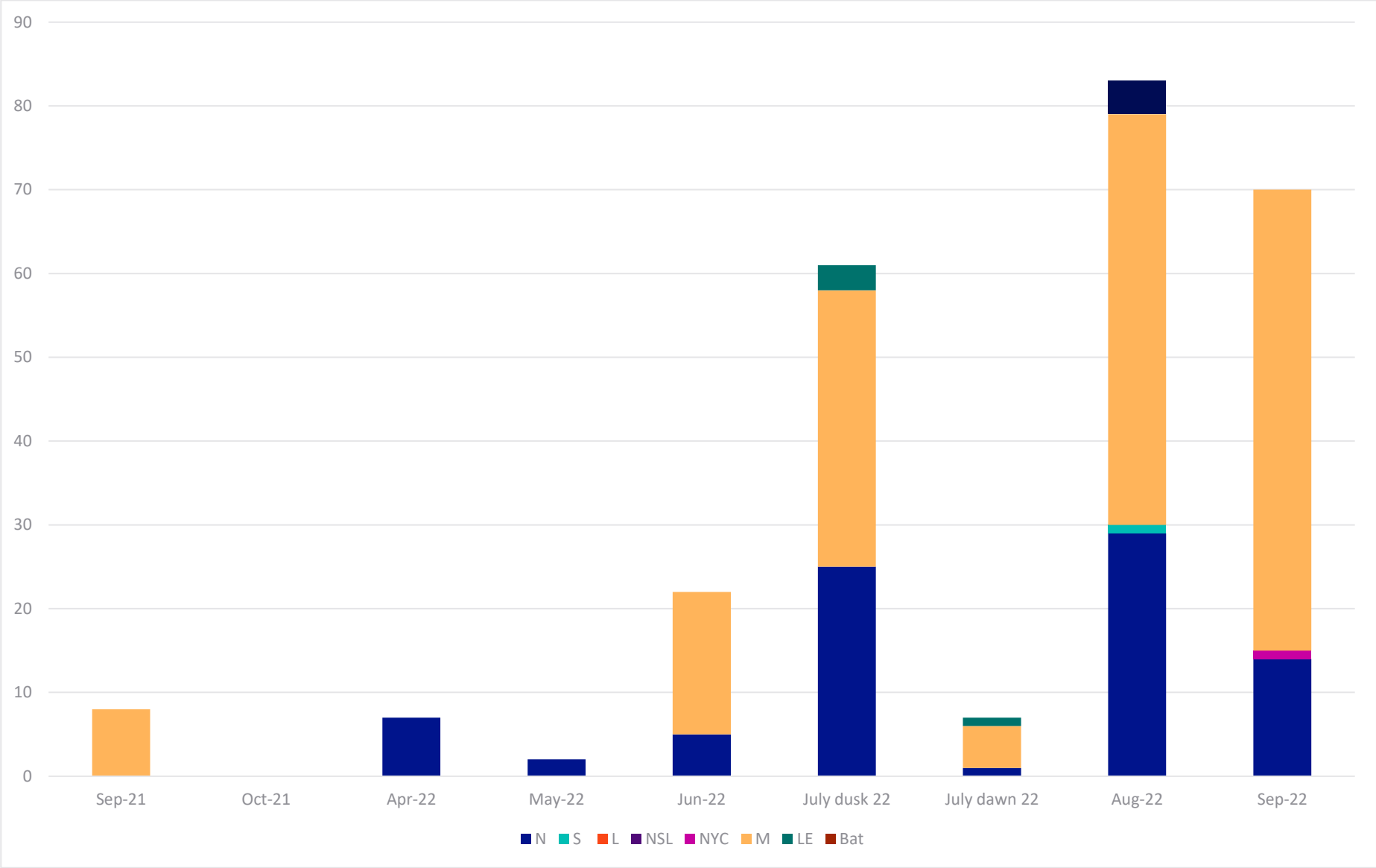
Graph 3.2 – Total bat passes per month (all Transects summed)



Graph 3.3 – Total bat passes per month (all Transects combined) of *Pipistrelle* species only



Graph 3.4 – Total bat passes per month (all Transects combined) of non-pipistrelle species



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General summary of passes

3.3.7 There were a total 2,099 bat passes recorded during manual transect surveys (September-October 2021 and April-September 2022).

3.3.8 As seen in **Graph 3.1**, the highest number of bat passes were recorded at Transect 1 (825). Transect 2 was the next highest (677), then Transect 4 (292), while Transect 5 (212) had the lowest levels of recorded activity.

3.3.9 Bat activity was highest in the summer, increasing between April to June 2022 before peaking in July before decreasing again towards September 2022 (**Graph 3.2**).

3.3.10 Number of passes were much lower in September 2021 (when Transects 2,4 and 5 were completed) as compared with September 2022 (when only Transect 1 was surveyed). This suggests therefore that the September 2021 results were artificially low as a result of Transect 1 being excluded. Combining September 2021 and 2022 it can be seen that the results would be comparable to August 2022.

3.3.11 Areas where greater levels of bat activity were recorded are summarised below and illustrated on **Figure 8.23, Volume 5, Document 5.4.8:**

- **Transect 1:**
  - Approximately 150m north of the location of proposed Pylon YN006 where the hedgerow/tree line running north-west intersects with Hurns Gutter ditch; and;
  - At the location of proposed Pylon YN004 halfway up Shipton Lane adjacent to the treeline.
- **Transect 2:**
  - Approximately 350m north of the location of proposed Gantry XCP005T where the river Foss loops back on itself and heads in a south-easterly direction; and
  - South of existing Pylon XCP008 adjacent to the River Ouse.
- **Transect 4:**
  - Approximately 350m west of existing Pylon XC498 by parcel of woodland directly east of Lead Hall Farm.
- **Transect 5:**
  - Where the hedgerow meets Rawfield Lane, approximately 20m to the west of the location of proposed Pylon XC526; 50m to the west of the location of proposed Gantries XC527 and XC528 and 100m to the east of the location of proposed Pylon XC525.

Common pipistrelle/Soprano pipistrelle

3.3.12 Common and soprano pipistrelle were recorded during all four transects in all months and were the most commonly recorded species in each transect and were therefore the most commonly recorded species overall (**Graph 3.3**). Totals of common and soprano pipistrelle were 1,301 and 510 passes, respectively. A further 16 passes were either common or soprano pipistrelle but could not be determined to species. Taken together, this accounts for over 87% of all bat passes recorded.

3.3.13 Common and soprano pipistrelle were recorded within 30 minutes of sunset or sunrise in the following months:

- Transect 1: October 2021; and May, June, July (dusk and dawn), August and September 2022 respectively;
- Transect 2: August 2022;
- Transect 4: October 2021; and July (dawn) and August 2022 respectively; and
- Transect 5: July (dusk) 2022.

3.3.14 Based on the emergence times of this species it is considered there may be a pipistrelle roost within close proximity to Transect 1.

Common pipistrelle/Nathusius' pipistrelle

3.3.15 There were 12 records of common/Nathusius' pipistrelle recorded in August 2022 at Transect 2. Given the overlap of the calls of both of these closely related species. It could not be determined with confidence which species they were.

Myotis sp.

3.3.16 Bats of the genus *Myotis* were the third most recorded species. They were recorded in September 2021 and from June to September 2022 (**Graph 3.4**) and in all four transects. Total passes from this species were 167, representing just under 8% of all passes recorded over the entire survey period. The majority of passes were recorded during August and September 2022 at Transect 1.

3.3.17 The results of the surveys do not suggest there is a *Myotis sp*. roost in the immediate vicinity.

Noctule

3.3.18 Noctule were recorded during most survey months (except September/October 2021) and totalled 82 passes overall (just under 4% of the total passes recorded). Noctule were recorded on all four transects though the majority of their activity was recorded at Transects 1 and 2.

3.3.19 As per the results in **Annex 8H.4**, noctule were recorded within 30 minutes of sunset at Transect 5 in July and August 2022. Is considered likely therefore that there is a noctule roost within close proximity to Transect 5.

Serotine

3.3.20 A single serotine was recorded in August 2022 at Transect 5.

Brown long-eared bat

3.3.21 Four passes by brown long-eared were recorded during the transect surveys. Two passes were recorded during the July 2022 at Transect 1 while two more were recorded in July 2022 at Transect 4.

Static monitoring

Overview

3.3.22 At least seven species were confirmed within the Order Limits during the static monitoring:

- Common pipistrelle;
- Soprano pipistrelle;
- Nathusius' pipistrelle;
- Noctule;
- Leisler's bat;
- *Myotis* species;
- Brown long-eared.

3.3.23 Results of the static monitoring are summarised in **Table 3.4** and presented in the following graph:

- **Graph 3.5**: Total numbers of passes from each species at each static detector location;
- **Graph 3.6**: Total number of passes (all species) in each month; and
- **Graph 3.7**: Average numbers of passes of each species at each static detector location.

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Table 3.4 – Summary of static monitoring results – total number of bat passes (average number of passes per night) for each species at each monitoring location for all months

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
Static 1a	Sept 21	4,125 (825)	1,019 (203.8)	12 (2.4)	0	8 (1.6)	0	0	0	3,305 (661)	20 (4)	0	0	**8,489**
	Oct 21	2,105 (421)	913 (182.6)	1 (0.2)	1 (0.2)	3 (0.6)	0	0	0	926 (185.2)	14 (2.8)	0	0	**3,963**
	Apr 22	966 (193.2)	91 (18.2)	0	0	0	0	0	0	30 (6)	0	0	0	**1,087**
	May 22	1,286 (257.2)	225 (45)	2 (0.4)	4 (0.8)	1 (0.2)	0	0	0	588 (117.6)	4 (0.8)	0	0	**2,110**
	Jun 22	2,909 (581.8)	636 (127.2)	0	10 (2)	2 (0.4)	0	0	0	663 (132.6)	9 (1.8)	0	0	**4,252**
	Jul 22	3,268 (653.6)	265 (53)	0	16 (3.2)	10 (2)	0	0	0	1,759 (351.8)	1 (0.2)	0	0	**5,319**
	Aug 22	5,558 (1,111.6)	652 (130.4)	2 (0.4)	0	41 (8.2)	0	0	1 (0.2)	1,075 (215)	6 (1.2)	1 (0.2)	0	**7,336**
	Total	**20,217**	**3,801**	**17**	**31**	**61**	**0**	**0**	**1**	**8,346**	**54**	**1**	**0**	**32,556**
Static 1b	Oct 21	273 (54.6)	419 (83.8)	0	0	0	0	0	0	12 92.4)	3 (0.6)	0	0	**707 (141.4)**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	July 22	1,511 (302.2)	462 (92.4)	6 (1.2)	6 (1.2)	9 (1.8)	0	0	1 (0.2)	1,097 (219.4)	11 (2.2)	1 (0.2)	0	**3,104 (620.8)**
	Aug 22	1,821 (364.2)	1,497 (299.5)	2 (0.4)		9 (1.8)	0	0	7 (1.4)	1,259 (251.8)	17 (3.4)	2 (0.4)	0	**4,614 (922.8)**
	Total	**3,695**	**2,378**	**8**	**6**	**18**	**0**	**0**	**8**	**2,368**	**28**	**3**	**0**	**8,425**
Static 2a	Sept 21	9 (1.8)	12 (2.4)	0	1 (0.2)	7 (1.4)	0	0	0	16 (3.2)	2 (0.4)	0	0	**47 (9.4)**
	Oct 21	1 (0.2)	1 (0.2)	0	0	2 (0.4)	0	0	0	15 (3)	0	0	0	**19 (3.8)**
	Apr 22	48 (9.6)	321 (64.2)	3 (0.6)	0	5 (1)	0	0	0	5 (1)	0	0	0	**382 (76.4)**
	May 22	466 (93.2)	272 (54.4)	0	20 (4)	5 (1)	0	0	4 (0.8)	13 (2.6)	0	0	0	**780 (156)**
	Jun 22	351 (70.2)	703 (140.6)		66 (13.2)	1 (0.2)	0	0	0	69 (13.8)	0	0	0	**1,190 (238)**
	Jul 22	348 (69.6)	802 (160.4)	4 (0.8)	30 (6)	0	0	0	2 (0.4)	13 (2.6)	0	0	0	**1,119 (239.8)**
	Aug 22	524 (104.8)	549 (109.8)	0	6 (1.2)	5 (1)	0	0	12 (2.4)	14 (2.8)	0	0	0	1,110 (222)
	Total	**1,747**	**2,660**	**7**	**123**	**25**	**0**	**0**	**18**	**145**	**2**	**0**	**0**	**4,727**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
Static 2b	Sept 21	3,539 (707.8)	652 (130.4)	42 (8.4)	15 (3)	6 (1.2)	0	0	3 (0.6)	944 (188.8)	13 (2.6)	2 (0.4)	0	**5,216 (1,043.2)**
	Oct 21	427 (85.4)	146 (29.2)	0	0	0	0	0	0	34 (6.8)	2 (0.4)	0	0	**609 (121.8)**
	Apr 22	192 (38.4)	53 (10.6)	0	0	1 (0.4)	0	0	0	45 (9)	0	0	0	**291 (58.2)**
	May 22	2,278 (455.6)	174 (34.8)	0	62 (12.4)	9 (1.8)	0	0	0	96 (19.2)	5 (1)	0	0	**2,624 (524.8)**
	Jun 22	785 (157)	76 (15.2)	0	28 (5.6)	10 (2)	0	0	0	163 (32.6)	8 (1.6)	0	0	**1,070 (214)**
	Jul 22	712 (142.4)	112 (22.4)	1 (0.2)	1 (0.2)	15 (3)	0	0	7 (1.4)	41 (8.2)	6 (1.2)	3 (0.6)	0	**898 (179.6)**
	Aug 22	706 (141.2)	475 (95)	3 (0.6)	0	34 (6.8)	1	0	6 (1.2)	221 (44.2)	22 (4.4)	1 (0.2)	0	**1,469**
	Total	**8,639**	**1,688**	**46**	**106**	**75**	**1**	**0**	**16**	**1,544**	**56**	**6**		**12,177**
Static 3a	Oct 21	65 (13)	9 (1.8)	0	0	3 (0.6)	0	0	0	7 (1.4)	15 (3)	0	0	**99 (19.8)**
	Apr 22	21 (4.2)	1 (0.2)	0	0	0	0	0	0	0	0	0	0	**22 (4.4)**
	May 22	25 (5)	5 (1)	0	0	1 (0.2)	0	0	0	1 (0.2)	2 (0.4)	0	0	**34 (6.8)**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	Jun 22	8 (1.6)	5 (1)	0	0	0	0	0	0	1 (0.2)	0	0	0	**14 (2.8)**
	Jul 22	78 (15.6)	47 (9.4)	1 (0.2)	0	32 (6.4)	2 (0.4)	0	8 (1.6)	11 (2.2)	2	0	0	**181 (36.2)**
	Aug 22	164 (32.8)	55 (11)	0	0	64 (12.8)	0	0	6 (1.2)	15 (3)	10 (2)	0	0	**314 (62.8)**
	Sept 22	103 (20.6)	26 (5.2)	0	0	252 (50.4)	0	0	19 (3.8)	7 (1.4)	30 (6)	5 (1)	0	**442 (88.4)**
	Total	**464**	**148**	**1**	**0**	**352**	**2**	**0**	**33**	**42**	**59**	**0**	**0**	**1,106**
Static 3b	Oct 21	14 (2.8)	1 (0.2)	0	0	0	0	0	0	1 (0.2)	5 (1)	0	0	**21 (4.2)**
	Apr 22	17 (3.4)	1 (0.2)	0	0	4 (0.8)	1 (0.2)	0	0	2 (0.4)	6 (1.2)	0	0	**31 (6.2)**
	May 22	28 (5.6)	2 (0.4)	0	0	0	0	0	0	0	0	0	0	**30 (6)**
	Jun 22	20 (4)	1 (0.2)	0	0	0	0	0	0	3 (0.6)	0	0	0	**24 (4.8)**
	Jul 22	53 (10.6)	29 (5.8)	0	0	99 (19.8)	1 (0.2)	0	14 (2.8)	2 (0.4)	22 (4.4)	9 (1.8)	0	**229 (45.8)**
	Aug 22	149 (29.8)	27 (5.4)	0	0	230 (46)	0	0	22 (4.4)	29 (5.8)	42 (8.4)	5 (1)	0	**504 (100.8)**
	Sept 22	85 (17)	17 (3.4)	0	0	87 (17.4)	1 (0.2)	0	12 (2.4)	5 (1)	22 (4.4)	1 (0.2)	0	**230 (46)**
	Total	**366**	**78**	**0**	**0**	**420**	**3**	**0**	**48**	**42**	**97**	**15**	**0**	**1,069**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
Static 4a	Sept 21	594 (118.8)	54 (10.8)	0	0	1 (0.2)	0	0	0	40 (8)	5 (1)	0	0	**694 (138.8)**
	Oct 21	248 (49.6)	131 (29.2)	0	33 (6.6)	0	0	0	0	7 (1.4)	0	0	0	**419 (83.8)**
	Apr 22	23 (4.6)	3 (0.6)	0	1 (0.2)	6 (1.2)	0	0	12 (2.4)	9 (1.8)	0	0	0	**54 (10.8)**
	May 22	57 (11.4)	4 (0.8)	0	0	2 (0.4)	0	0	0	11 (2.2)	0	0	0	**74 (14.8)**
	Jun 22	31 (6.2)	13 (2.6)	0	0	0	0	0	0	5 (10	0	0	0	**49 (9.8)**
	Jul 22	94 (18.8)	28 (5.6)	0	1 (0.2)	14 (2.8)	0	0	3 (0.6)	29 (5.8)	0	0	0	**169 (33.8)**
	Aug 22	117 (23.4)	43 (8.6)	0	0	8 (1.6)	0	0	2 (0.4)	37 (7.4)	5 (1)	0	0	**212 (42.4)**
	Total	**1,164**	**276**	**0**	**35**	**31**	**0**	**0**	**17**	**138**	**10**	**0**	**0**	**1,671**
Static 4b	Sept 21	8,258 (1,651.6)	613 (122.6)	0	1 (0.2)	51 (10.2)	2 (0.4)	0	0	2,757 (551.4)	39 (7.8)	0	0	**11,721 (2,334.2)**
	Oct 21	7,167 (1,433.4)	517 (103.4)	2 (0.4)	0	12 (2.4)	39 (7.8)	0	14 (2.8)	1,246 (249.2)	31 (6.2)	0	0	**9,028 (1,805.6)**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	Apr 22	277 (55.4)	9 (1.8)	0	0	0	0	0	0	28 (5.6)	0	0	0	**314 (62.8)**
	May 22	158 (31.6)	9 (1.8)	0	0	0	0	0	0	15 (3)	1 (0.2)	0	0	**183 (36.6)**
	Jun 22	1,249 (249.8)	34 (6.8)	0	4 (0.8)	1 (0.2)	0	0	0	37 (7.4)	0	0	0	**1,325 (265)**
	Jul 22	185 (37)	5 (1)	0	1 (0.2)	33 (6.6)	0	0	8 (1.6)	16 (3.2)	0	0	0	**248 (49.6)**
	Aug 22	151 (30.2)	196 (39.2)	0	0	14 (2.8)	0	0	8 (1.6)	13 (2.6)	0	0	0	**382 (76.4)**
	Total	**17,445**	**1,383**	**2**	**6**	**111**	**41**	**0**	**30**	**4,112**	**71**	**0**	**0**	**23,201**
Static 5a	May 22	49 (9.8)	9 (1.8)	0	2 (0.4)	17 (3.4)	0	0	9 (1.8)	1 (0.2)	0	0	0	**87 (17.4)**
	Jun 22	39 (7.8)	23 (4.6)	0	5 (1)	37 (7.4)	0	0	0	3 (0.6)	0	0	0	**107 (21.4)**
	Jul 22	48 (9.6)	56 (11.2)	1 (0.2)	0	26 (5.2)	0	0	7 (1.4)	0	0	0	0	**138 (27.6)**
	Aug 22	292 (58.4)	135 (27)	1 (0.2)	0	124 (24.8)	0	0	8 (1.6)	45 (9)	9 (1.8)	0	0	**614 (122.8)**
	Sept 22	85 (17)	46 (9.2)	0	1 (0.2)	70 (14)	0	0	11 (2.2)	13 (2.6)	3 (0.6)	1 (0.2)	0	**230 (46)**

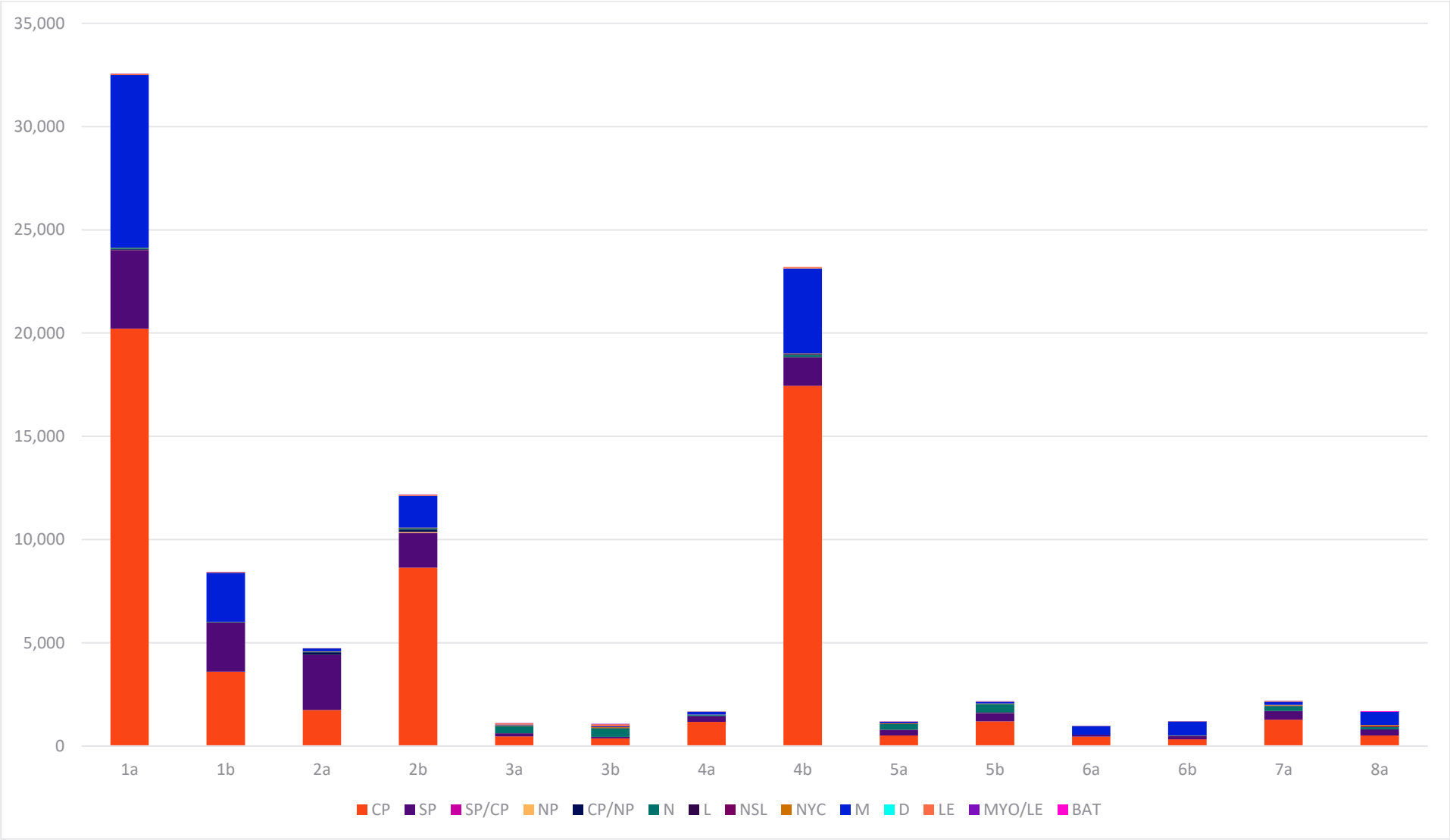
Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	Total	**513**	**269**	**2**	**8**	**274**	**0**	**0**	**35**	**62**	**12**	**1**	**0**	**1,176**
Static 5b	Sept 21	145 (29)	69 (13.8)	1 (0.2)	1 (0.2)	82 (16.4)	0	0	0	30 (6)	3 (0.6)	0	0	**331 (66.2)**
	Oct 21	37 (7.4)	6 (1.2)	0	0	0	0	0	0	0	0	0	0	**43 (8.6)**
	Apr 22	39 (7.8)	14 (2.8)	0	1 (0.2)	32 (6.4)	0	0	1 (0.2)	1 (0.2)	0	0	0	**88 (17.6)**
	May 22	144 (28.8)	19 (3.8)	0	22 (4.4)	21 (4.2)	0	0	0	1 (0.2)	0	0	0	**207 (41.4)**
	Jun 22	220 (44)	29 (5.8)	0	16 (3.2)	36 (7.2)	0	0	0	5 (1)	0	0	0	**306 (61.2)**
	Jul 22	314 (62.8)	121 (24.2)	7 (1.4)	1 (0.2)	117 (23.4)	0	0	5 (1)	5 (1)	0	0	0	**570 (114)**
	Aug 22	292 (58.4)	135 (27)	1 (0.2)	0	121 (24.2)	0	0	12 (2.4)	46 (9.2)	8 (1.6)	2 (0.4)	0	**617 (123.4)**
	Total	**1,191**	**393**	**9**	**41**	**409**	**0**	**0**	**18**	**88**	**11**	**0**	**0**	**2,162**
Static 6a	Sept 21	180 (36)	46 (9.2)	1 (0.2)	0	0	0	0	0	145 (29)	2 (0.4)	0	0	**374 (74.8)**
	Oct 21	154 (30.8)	25 (5)	0	0	0	0	0	0	250 (50)	0	0	0	**429 (85.8)**

Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	Apr 22	5 (1)	9 (1.8)	0	0	0	0	0	0	16 (3.2)	0	0	0	**30 (6)**
	May 22	26 (5.2)	9 (1.8)	0	0	0	0	0	0	4 (0.8)	0	0	0	**39 (7.8)**
	Jun 22	69 (13.8)	4 (0.8)	2 (0.4)	0	0	0	0	0	0	0	0	0	**75 (15)**
	Jul 22	18 (3.6)	0	0	0	3 (0.6)	0	0	0	2 (0.4)	0	0	0	**23 (4.6)**
	Aug 22	0	0	0	0	0	0	0	0	0	0	0	0	**0**
	Total	**452**	**93**	**3**	**0**	**3**	**0**	**0**	**0**	**417**	**0**	**0**	**0**	**970**
Static 6b	Apr 22	6	8	0	0	0	0	0	0	3	0	0	0	**17**
	May 22	124	64	0	2	1	0	0	0	468	0	0	0	**659**
	Jun 22	74	34	0	4	0	0	0	0	64	0	0	0	**1765**
	Jul 22	54	14	0	0	0	0	0	0	94	1	0	0	**163**
	Aug 22	42	20	0	0	19	0	0	5	55	3	0	0	**144**
	Sept 22	25	13	0	0	1	0	0	0	4	0	0	0	**43**
	Total	**325**	**153**	**0**	**6**	**21**	**0**	**0**	**5**	**688**	**4**	**0**	**0**	**1,202**
Static 7a	Sept 21	615 (123)	103 (20.6)	2 (0.4)	2 (0.4)	104 (20.8)	28 (5.6)	0	0	50 (10)	14 (2.8)	0	0	**918 (183.6)**

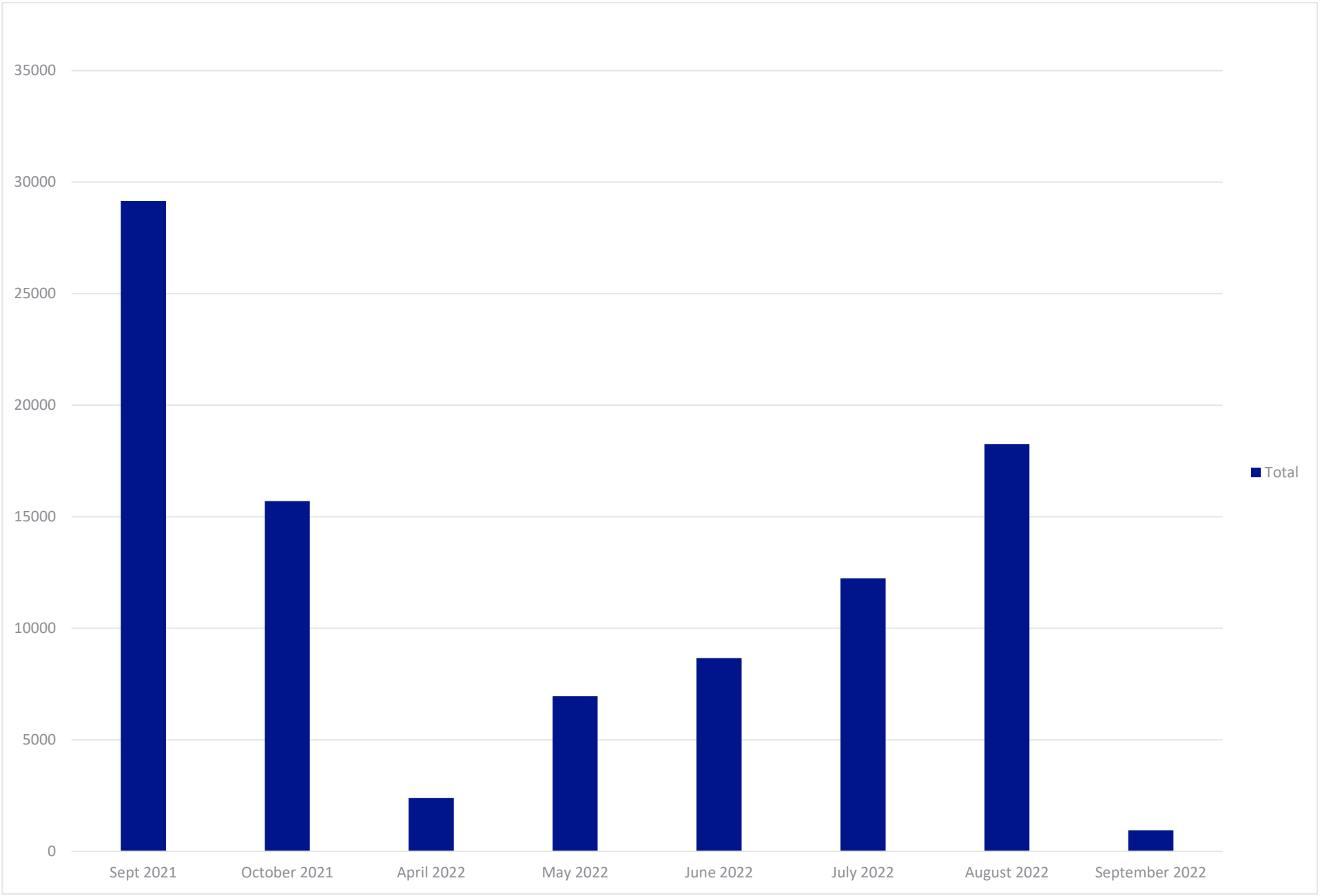
Ref	Month	CP	SP	NP	C/N	N	L	NSL	Nyct sp	M	LE	M/LE	Bat sp.	Total
	Oct 21	15 (3)	29 (5.8)	0	0	5 (1)	0	0	3 (0.6)	0	0	0	0	**52 (10.4)**
	Apr 22	58 (11.6)	9 (1.8)	0	1 (0.2)	4 (0.8)	0	0	0	0	1 (0.2)	0	0	**73 (14.6)**
	May 22	54 (10.8)	38 (7.6)	0	0	20 (4)	0	0	3 (0.6)	10 (2)	2 (0.4)	0	0	**127 (25.4)**
	Jun 22	36 (7.2)	17 (3.4)	0	2 (0.4)	9 (1.8)	0	0	0	3 (0.6)	10 (2)	0	0	**77 (15.4)**
	Aug 22	501 (100.2)	212 (42.4)	0	0	93 (18.6)	2 (0.4)	0	23 (4.6)	92 (18.4)	11 (2.2)	2 (0.4)	0	**936**
	Total	**1,279**	**408**	**2**	**5**	**235**	**30**	**0**	**29**	**155**	**38**	**2**	**0**	**2,183**
Static 8a	Sept 21	365	150	0	0	120	0	3	74	645	1	2	2	**1,362**
	Oct 21	145	146	0	0	13	0	0	3	0	1	0	0	**308**
	Total	**510**	**296**	**0**	**0**	**133**	**0**	**3**	**77**	**645**	**2**	**2**	**2**	**1,670**

Species codes: Species codes: CP = common pipistrelle; SP = soprano pipistrelle; CP/SP = common/soprano pipistrelle; CP/NP = common/Nathusius' pipistrelle; NSL = noctule/serotine/Leisler's bat; Nyct sp. = noctule/Leisler's bat; N = noctule; LE = Plecotus sp.; M = Myotis sp.; Bat sp. = calls not assigned to a species or species group; GH = greater horseshoe bat and LH = lesser horseshoe bat.

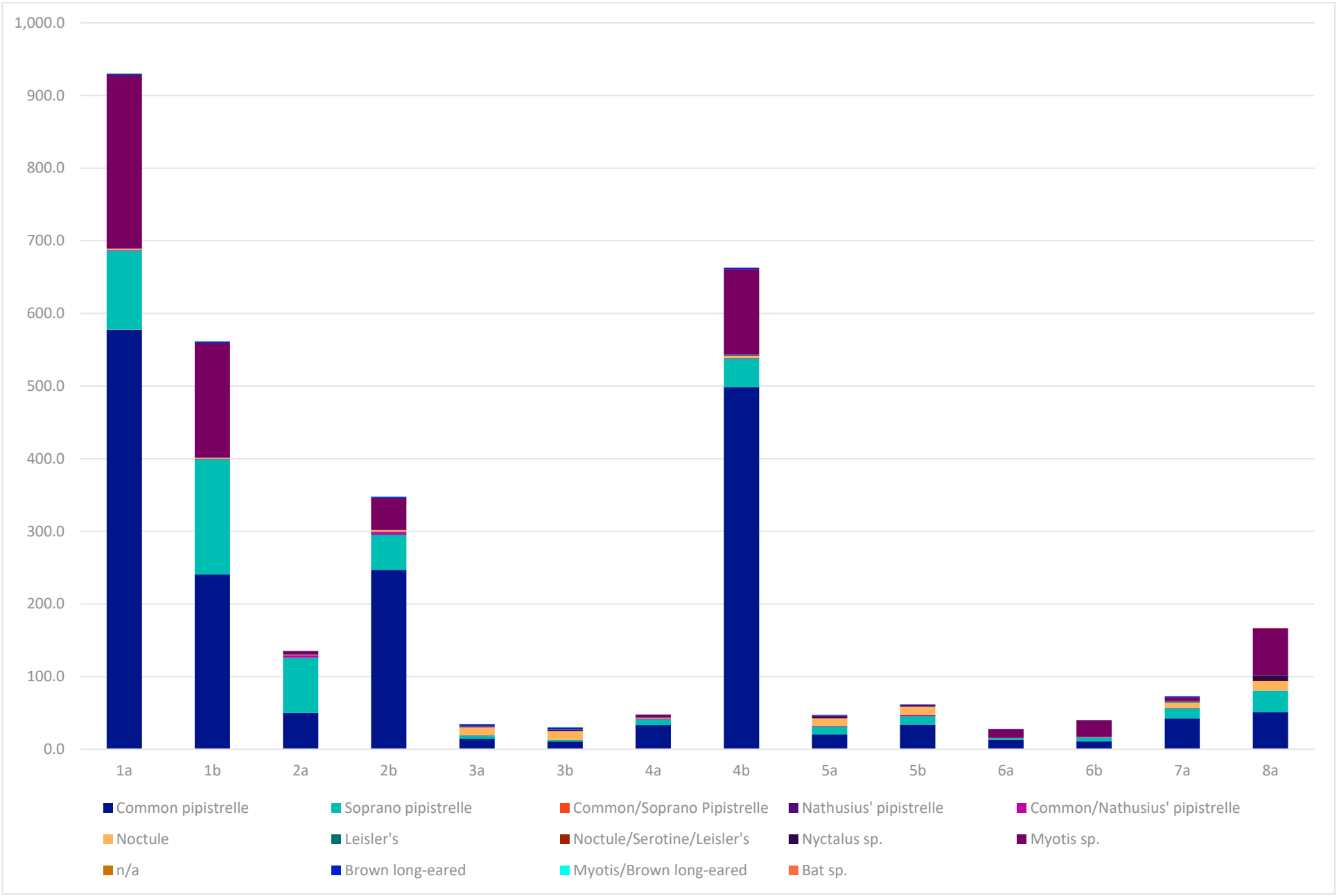
Graph 3.5 – Total numbers of passes from each species at each static detector location



Graph 3.6 – Total number of passes (all species) in each month



Graph 3.7 – Average number of passes per night of each species at each static detector location



General Summary

3.3.24 There were a total of 94,295 bat passes recorded over all static detector locations during the entire survey period (September-October 2021 and April-September 2022).

3.3.25 As shown on **Graph 3.4**, static location 1a recorded the highest number of bat passes out of all static detector locations. This location had 32,556 passes, which accounted for 34.5% of all passes recorded during the survey period. The location with the next highest number of passes was static location 4b with 23,201, which is 25% of all passes.

3.3.26 The next highest number of passes were recorded at static location 2a (12,177 passes) and then 1b (8,425 passes). Locations 2a, 3a, 3b, 4a, 5a, 5b, 6a, 6b, 7a, and 8a all had relatively low numbers by comparison with, on average, 1,793 passes at each of these locations over the course of the survey period.

3.3.27 The greatest numbers of passes recorded in any month were in September 2021 (as seen in **Graph 3.6**). During this month 29,152, or 31%, of all passes for the entire survey period were recorded. Numbers of passes then declined in October 2021 and again into April 2022 before rising steadily throughout the course of the summer and peaking in August. Passes during August 2022 were substantially lower than the peak during September 2021, with 18,252 in August 2022 and 29,152 in September 2021.

3.3.28 Levels of activity in September 2022 (945 in total) were extremely low by comparison to those in September 2022 (29,152 in total). When the average passes per night are considered: 47.25 in September 2022 and 647 per night in September 2022) it is clear there is still a large disparity though not as high as when only totals are considered. The large discrepancy was due to the static location 1a and 1b being included in the September 2021 surveys and excluded from the September 2022 surveys.

Common pipistrelle

3.3.29 Common pipistrelle was by far the most recorded species during the static detector surveys. In total, 57,917 passes from this species were returned which accounted for 61.5% of all passes recorded over the survey period. Common pipistrelle was recorded during every survey month, at every static detector location (see **Graph 3.5**). Out of all static locations, 1a had the most passes by common pipistrelle with 20,217 in total and an average of 577 per night (see Figure 3.7). This represents 35% of all common pipistrelle passes recorded over the entire survey period.

3.3.30 The location and month with the highest levels of common pipistrelle passes was location 4b during September 2021. At this time and location, 8,258 or 14% of all common pipistrelle passes for the entire survey period were recorded.

Myotis sp.

3.3.31 Species of the *Myotis* genus were the second most recorded species recorded. In total, 18,815 records of myotis species were returned, which accounts for just under 20% of all bat records returned over the survey period. *Myotis* species were recorded at every static location during the majority of months, though there were several months when this species was absent. Out of all static locations, 1a had the most passes by *Myotis* species with a total of 8,369 in total and an average of 239 per night (see **Graph 3.7**). This represents 45% of all records for this species group recorded over the entire survey period (see **Graph 3.5).**

3.3.32 The location and month with the majority of *Myotis sp*. passes was location 1a during September 2021. At this time and location, 3,305 or 17.5% of all *Myotis sp*. passes for the entire survey period were recorded.

Soprano pipistrelle

3.3.33 Soprano pipistrelle was the third most recorded species during the static detector surveys. In total, 14,024 passes from this species were returned which accounted for just under 15% of all passes over the survey (see **Graph 3.5**). Soprano pipistrelle was recorded at every static detector location, and during every month except August 2022 at Location 6a. Out of all static locations, 1a had the most passes by soprano pipistrelle with 3,801 in total and an average of 108 per night (see **Graph 3.7**). This represents 27% of all soprano pipistrelle passes recorded over the entire survey period. Location 1b during August 2022 recorded 1,497 passes by this species which comprises just over 10% of all soprano pipistrelle passes for the entire survey period.

Noctule/Serotine/Leisler's bat

3.3.34 Taken together, this group was the fourth most recorded with a total of 2,587 passes, of which 2,172 were noctule, 77 were Leisler's bat, three were noctule/serotine/Leisler's bat (NSL) and 335 were *Nyctalus* sp. (either noctule or Leisler's bat). A single serotine pass was recorded and it is likely that the three records assigned as NSL were from *Nyctalus* sp. Nyctalus species therefore comprised 2.74% of all passes recorded during the survey.

3.3.35 The location with the highest amount of *Nyctalus* species activity was location 3b with 420 passes recorded over the entire survey period (just over 16% of all *Nyctalus* passes recorded) with an average of 13.4 passes per night.

Brown long-eared (BLE)

3.3.36 During the entire survey period 449 records of brown long-eared (BLE) were recorded. This accounts for just under 0.5% of all bat passes. BLE were noted at each static location at some point during the entire survey period however there were months were no passes were recorded at certain locations. The majority of BLE passes were noted at location 3b in August 2022 with a peak count of 42 (just over 9% of all BLE passes recorded).

Nathusius' pipistrelle or Common pipistrelle/Nathusius' pipistrelle

3.3.37 A total of 464 passes were recorded as either Nathusius' pipistrelle or common pipistrelle/Nathusius' pipistrelle. Due to the overlapping nature of the calls of these species it is difficult to determine the number of passes which can reliably attributed to Nathusius' pipistrelle. However, taking only those passes assigned a high level of confidence gives a total 97 passes likely to be from Nathusius' pipistrelle. This would account for 0.1% of all passes recorded during the survey. The majority of these passes were noted in just two locations: 1a and 2b and in September 2021.

Roost identification in trees

Preliminary ground level roost assessment - trees

3.3.38 Trees likely to be subject to direct effects within the Order Limits were subject to a GLRA to determine their suitability to support roosting bats. The full results of the GLRA

are set out in **Annex 8H.5 – Preliminary ground level roost assessment results.** The results are summarised below:

- Initial GLRA (May to June 2022)
  - Four trees were assessed as having High suitability to support roosting bats;
  - 69 trees were considered to have Moderate suitability; and
  - 93 trees were considered to have Low suitability.
- Additional GLRA (November 2022 to February 2023)
  - 11 trees were assessed as having High suitability to support roosting bats;
  - 74 trees were considered to have Moderate suitability; and
  - 289 trees were considered to have Low suitability.

Aerial tree climbing inspection survey

3.3.39 Where access and safety allowed, and where those trees were considered to be potentially impacted as a resulted of the Project; trees assessed during the GLRA as having either Moderate or High suitability to support roosting bats were subject to an aerial tree climbing inspection. The trees, 154 in total, assessed during the initial (69 trees surveyed July to September 2022) and additional (85 trees surveyed February to April 2023) aerial tree climbing inspections and their corresponding suitability to support roosting bats, are shown in **Table 3.5**.

3.3.40 Tree nomenclature follows that as established by for the purpose of survey. It should be noted that this is not the same nomenclature as used in the **Arboricultural Impact Assessment (Appendix 3I, Volume 5, Document 5.3.3I)**. The tree locations along with their suitability to support rooting bats following the climbed inspections can be seen in **Figure 8.26B, Volume 5, Document 5.4.8[13].**

Table 3.5 – Suitability of trees to support roosting bats following climbed aerial inspection

Suitability	Total No. of Trees	Tree reference (TR)
Confirmed Roost	1	[redacted]
High	49	2022 inspections: 4, 12, 14, 18, 30, 31, 35, 36, 37, 40, 43, 44, 47, 69, 72, 73, 75, 76, 78, 80, 85, 89, 98, 100, 102, 104, 108, 118, 119, 123, 127, 130, 140 and 151. 2023 inspections: 174, 184, 236, 259, 261, 265, 284, 304, 311, 320, 367, 368, 444, 445, and 531.

[13] Trees with negligible roosting potential are only indicated on Figure 8.26B where they have been downgraded from previous moderate or high potential following more detailed survey.

Suitability	Total No. of Trees	Tree reference (TR)
Moderate	54	2022 inspections: 5, 8, 10, 17, 19, 23, 26, 39, 46, 48, 86, 88, 97, 99, 101, 103, 107, 109, 116, 122 128, 149, 150, 152, 162 and 163. 2023 inspections: 167, 173, 175, 176, 180, 186, 191, 192, 196, 199, 203, 225, 226, 229, 242, 252, 258, 286, 313, 317, 324, 329, 332, 379, 415, 456, 467, and 516.
Low	21	2022 inspections: 24, 68, 79, and 115. 2023 inspections: 181, 243, 256, 264, 272, 276, 277, 285, 325, 337, 340, 348, 349, 372, 377, 462, and 533.
Negligible	29	2022 inspections: 13, 62, 92, 111 and 121. 2023 inspections: 183, 185, 198, 245, 274, 280, 282, 294, 306, 307, 334, 338, 350, 356, 369, 382, 383, 386, 432, 436, 443, 534, 535, and 536.

3.3.41 During the initial aerial tree climb inspection (July-September 2022), tree [redacted] showed inconclusive signs of bat roosting, a dropping was recorded within a PRF in Tree [redacted] however DNA testing of the dropping was inconclusive, no other signs of bat roosting was recorded. A distinctive odour which may correspond to a bat roost was recorded within a PRF in Tree [redacted] but no other signs of bat roosting was recorded. It is not considered this evidence alone is sufficient to establish roosting and these trees were assigned as High suitability to support roosting bats.

3.3.42 During the additional aerial tree-climbing inspection (February to April 2023), a single confirmed roost was identified in [redacted]. A single pipistrelle bat (*Pipistrellus* sp.), was observed roosting within a south-facing rot hole within the tree on 9 March 2023. The timing of the survey indicates that it was being used as a hibernation roost. In view of the size and location of the roost feature it is likely that the tree may also provide occasional roosting habitat for a small number of bats during the bat active season (generally April to October).

Final tree summary

3.3.43 The final roosting suitability status of all trees subject to an initial GLRA and/or surveyed via aerial inspection are shown in **Table 3.6**.

Table 3.6 – Final summary of roost suitability of all trees surveyed

Suitability	No. of Trees	Tree reference (TR)
Confirmed Roost	1	[redacted]

Suitability	No. of Trees	Tree reference (TR)
High	49	4, 12, 14, 18, 30, 31, 35, 36, 37, 40, 43, 44, 47, 69, 72, 73, 75, 76, 78, 80, 85, 89, 98, 100, 102, 104, 108, 118, 119, 123, 127, 130, 140,151, 174, 184, 236, 259, 261, 265, 284, 304, 311, 320, 367, 368, 444, 445, and 531.
Moderate	54	5, 8, 10, 17, 19, 23, 26, 39, 46, 48, 86, 88, 97, 99, 101, 103, 107, 109, 116, 122, 128, 149, 150, 152, 162,163, 167, 173, 175, 176, 180, 186, 191, 192, 196, 199, 203, 225, 226, 229, 242, 252, 258, 286, 313, 317, 324, 329, 332, 379, 415, 456, 467, and 516..
Low	390	1, 2, 3, 6, 7, 9, 11, 15, 16, 20, 21, 22, 24, 25, 27, 28, 29, 32, 33, 34, 38, 41, 42, 45, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 63, 64, 65, 66, 67, 68, 70, 71, 74, 77, 79, 81, 82, 83, 84, 87, 90, 91, 93, 94, 95, 96,105, 106, 110, 112, 113, 114, 115 117, 120, 124, 125, 126, 129,131,132,133,134,135,136,137,138, 139,141,142,143, 144,145, 146, 147, 148, 153, 154, 155, 156, 157, 158, 159, 160, 161, 164, 165,166, 168, 169, 170, 171, 172, 177, 178, 179, 182, 187, 188, 189, 190, 193, 194, 195, 197, 200, 201, 202, 204, 205, 206, 207, 28, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 227, 228, 230, 231, 232, 233, 234, 235, 237, 238, 239, 240, 241, 244, 246, 247, 248, 249, 250, 251, 253, 254, 255, 257, 260, 262, 263, 266, 267, 268, 269, 270, 271, 273, 275, 278, 279, 281, 287, 288, 289, 290, 291, 292, 293, 295, 296, 297, 298, 299, 300, 301, 302, 303, 305, 308, 309, 310, 312, 314, 315, 316, 318, 319, 321, 322, 323, 326, 327, 328, 330, 331, 333, 335, 336, 339, 341, 342, 343, 344, 345, 346, 347, 351, 352, 353, 354, 355, 358, 359, 360, 361, 362, 363, 364, 365, 366, 370, 371, 373, 374, 375, 376, 378, 380, 381, 384, 385, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 412, 413, 414, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 433, 434, 435, 437, 438, 439, 440, 441, 442, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 457, 458, 459, 460, 461, 463, 464, 465, 466, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 182, 183, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 532, 533, 537, 538 and 539.

Suitability	No. of Trees	Tree reference (TR)
Negligible	29	13, 62, 92, 111,121, 183, 185, 198, 245, 274, 280, 282, 294, 306, 307, 334, 338, 350, 356, 369, 382, 383, 386, 432, 436, 443, 534, 535, and 536.
Total number of trees with bat roost suitability	493	

4. Summary

4.1 Overview

4.1.1 A desk study was carried out in 2021, which provided the following information:

- No nationally or internationally important sites that are designated for bat conservation with 10km;
- The presence of roosts for at least seven species of bat with 5km including common pipistrelle, soprano pipistrelle, Brandt's bat, natterer's bat, Daubenton's bat whiskered bat, brown long-eared; and
- Records of bat activity for at least eight species within 2km including common pipistrelle, soprano pipistrelle, Brandt's bat, Daubenton's bat, whiskered bat, brown long-eared, noctule and Leisler's bat.

4.1.2 In total, at least eight species of bat were confirmed within the survey area during all surveys: common pipistrelle, soprano pipistrelle, *Myotis* species, noctule, Leisler's bat, brown long-eared bat, serotine and Nathusius pipistrelle. **Table 3.3** and **Table 3.4** provides a summary of the bat species recorded within, or potentially occurring within the survey area, and a summary of the data that supports this assessment.

Roost identification

4.1.3 One confirmed pipistrelle bat roost was identified during all survey work. Common pipistrelle, soprano pipistrelle and noctule were recorded within 30 minutes of sunset/sunrise during activity surveys suggesting roosts for these species may be present within close proximity to the Order Limits. Following aerial tree inspections 49 trees were assessed as having High suitability to support roosting bats while 54 were assessed as having Moderate suitability to support roosting bats. No buildings will be impacted by the Project.

4.1.4 Following identification of the confirmed bat roost in [redacted], in accordance with the mitigation hierarchy the Project design was reviewed, and whilst the tree is not likely to be removed, it is not possible to confirm that some management works are not required. Should any works be required on this tree, this could trigger the need for a derogation licence (and therefore a Letter of No Impediment (LoNI)).

Bat activity

4.1.5 The habitats within the Order Limits provide moderate suitability for foraging and commuting bats. The greatest levels of bat activity recorded during the static detector surveys were recorded at Static detector locations 1a, while Transect 1 had the most activity during the manual transect surveys.

4.1.6 Static 1a, set within Transect 1, was installed in a treeline along an access track and bordered by a grassy ruderal strip. The surrounding habitat is predominantly arable fields, hedgerows and treelines. There was little to no light pollution in this area and it is clear that this treeline provides a commuting corridor and foraging resource for bats in an area dominated by otherwise open arable fields.

Common and Soprano Pipistrelle

4.1.7 The vast majority of the bat passes recorded by surveys comprised common and soprano pipistrelles (76.5% of all static detector recordings), both a common and widespread species. Both species were noted in the desk study as being present in the local area and previous EPSM licences for both species were recorded within 5km of the Order Limits highlighting the presence of roosts for these species in the wider area. Given the occasions where these species were recorded within 30 minutes of sunrise and sunset, it is considered that both species may be roosting in close proximity to the Order Limits.

Myotis species

4.1.8 A high number of passes from *Myotis* species were recorded across the Order Limits (20% of all static detector recordings). Though it is not always possible to assess calls of this genus to species level, analysed recordings indicate that they are likely to from mainly Daubenton's bat or Natterer's bat with smaller numbers from whiskered bat and Brandt's bat. Daubenton's bat, Brandt's bat and whiskered bat were all recorded in the desk study to be present as foraging/commuting the local area. Natterer's bat was not noted in the general activity desk study, though as mentioned a confirmed roost for this species is known to be present in the vicinity. Alcathoe are less common in Yorkshire and were not recorded in the desk study, whilst they may be present it is considered unlikely.

Nyctalus species

4.1.9 Passes from *Nyctalus* species accounted for 2.74% of all static detector passes during the entire survey period. Of the Nyctalus species recorded during, noctule was present in far higher numbers than Leisler's bat. Both species were noted in the desk study as present in the local area.

Nathusius pipistrelle, brown long-eared bat and serotine

4.1.10 Small numbers of passes Nathusius' pipistrelle and brown long-eared recordings were noted. Nathusius' pipistrelle is rare in Yorkshire, while brown long-eared bats species are fairly uncommon though likely to be very under recorded due to the quiet nature of its calls. One serotine pass was recorded only during all survey work on a transect survey 5 in August 2022.

Table 4.1 – Summary of survey results

Species	Contextual and desk study information	Activity summary	Roosting status
Common pipistrelle	Common and widespread nationally and common within Yorkshire. Desk study identified records within a 5km radius of the Order Limits.	Common pipistrelle bats were by far the most frequently recorded species during both activity transect and static monitoring surveys and were recorded at high levels of activity. They were frequently recorded during both the transect and static surveys commuting and foraging across multiple parts of the transect route. The majority of passes were recorded at static location 1 (principally location 1a) and 4.	A single pipistrelle bat (*Pipistrellus* sp.) was recorded roosting in [redacted] It was not possible to confirm the species but is likely to be common or soprano pipistrelle.
Myotis species	Depending on the species, they can range from uncommon (whiskered bat) to fairly common (Daubenton's) to very rare (Brandt's' bat throughout Yorkshire.	Moderate levels off foraging and commuting activity by *Myotis* species were recorded during the transect and static surveys and all locations. The majority of *Myotis* passes were recorded at static location 1a.	No roosts were identified.
Soprano pipistrelle	Common and widespread nationally and fairly common within Yorkshire Desk study identified records within a 5km radius of the Order limits.	Soprano pipistrelle bats were frequently recorded during both activity transect and static monitoring surveys commuting and foraging, across multiple parts of the transect routes. The majority of passes were recorded at static location 1b but were common at all static locations.	A single pipistrelle bat (*Pipistrellus* sp.) was recorded roosting in [redacted]. It was not possible to confirm the species but is likely to be common or soprano pipistrelle.
Noctule	Common and widespread nationally and fairly uncommon but widespread in Yorkshire.	Comparatively low levels of commuting and foraging activity were recorded during the transect surveys, though substantially more passes were returned during the static surveys, particularity at static location 3b. Activity levels were much lower than common pipistrelle, however noctule is a rarer species and	No roosts were

Species	Contextual and desk study information	Activity summary	Roosting status
		the level of activity from this species can therefore be classed as moderate.	
Leisler's bat	Fairly uncommon though widespread in the UK. Uncommon in Yorkshire. Desk study identified records within 5km of the Order limits. m	Very low levels of activity for this species were recorded during surveys. Recorded primarily at static locations 4b and 7a.	No roosts were identified.
Brown long-eared	Relatively common and widespread nationally; locally distributed in Yorkshire. Desk study identified records within a 5km radius of the Order limits.	Low levels of brown long-eared bat activity were recorded during the transect surveys and at slightly higher levels during the static survey where this species was recorded intermittently throughout the survey period. The highest levels of activity were recorded at static location 3.	No roosts were identified.
Nathusius pipistrelle	Rare nationally and rare in Yorkshire. No records present within desk study.	Very low levels of activity from this species were noted during the static surveys and of those that were almost all were noted at static location 1a and 2b and in September 2021.	Although a single pipistrelle bat (*Pipistrellus* sp.) was recorded roosting in [redacted] it is very unlikely to be a Nathusius pipistrelle due to its extreme rarity.
Serotine	Widely distributed in England though uncommon. Extremely rare in Yorkshire.	Only a single pass of this species was recorded during all survey work during an activity transect.	No roosts were identified.

Species	Contextual and desk study information	Activity summary	Roosting status
	No records present within desk study.		

Annex 8H.1 – Static detector survey information

Table H.1 – Static detector survey location

Static detector reference/location	Grid reference	Description of deployment location
Static 1a	SE 56609 58898	1a was deployed at the base of an oak tree, forming part of a treeline bordering an access track to a farm. This treeline is predominantly mature oak and ash. The surrounding habitat is predominantly arable fields, hedgerows and treelines. The tree in which the detector was fixed was bordered by a grassy ruderal strip which appeared to be regularly maintained. To the south-west of the detector is the private access road, followed by a hawthorn hedgerow and subsequent arable field. To the north-east lies another arable field. There was little to no light pollution in this area. It was therefore considered that this treeline could provide a suitable corridor for bats in an area dominated by arable farming and therefore unfavourable for bats. The deployment location was situated at the eastern edge of the proposed working area for new build pylon YN004 within the Order Limits. An access route will also be created through the treeline at this point, to allow access to new build pylon YN003 and further works.
Static 1b	SE 55933 58079	1b was deployed in an area of tall ruderal vegetation at the western edge of an arable field. To the east is Hurns Gutter, which was bordered by a tall hawthorn hedgerow on its western bank. To the south is an area of woodland with mature trees, which could potentially provide favourable habitat for use by bats for commuting, foraging or roosting. The areas were considered to be subject to minimal light pollution due to the remoteness, though there is some potential for light to spill from the nearby settlement of Shipton by Beningbrough, located to the north-west of the detector. The surrounding trees and hedgerows would likely act as a buffer to this light pollution. Overall, the area in which the detector is positioned would likely provide a relatively dark corridor in which the bats could travel, in an area which is otherwise largely unsuitable. The deployment location is situated within the planned located of a new bridge crossing over Hurns Gutter. An access trackway will follow the field boundary and associated treeline southwest until reaching this location, and continue south to the location of new build pylon YN007 and further works.

Static detector reference/location	Grid reference	Description of deployment location
Static 2a	SE 53890 56157	2a was deployed on an elder tree within an area of woodland bordering The Foss. The habitat is predominantly a corridor of deciduous woodland and scrub, with species such as hawthorn, elder, willow and oak. To the north and south, the land is farmed for arable crop. To the east is an area of semi-improved grassland. It was considered during assessment that there was potential for light pollution to originate from the poultry farm situated to the north on the opposite side of the river. However, the treelines on either side of the river were considered as providing a light screen. This corridor of woodland follows the river until it joins with the river Ouse, providing a relatively dark, favourable commuting corridor for bats. This deployment location is situated within the Order Limits for the proposed works, within the proposed scaffold location for overhead line works between span XC420 - XC421.
Static 2b	SE 53153 56214	2b was deployed in a break within a hawthorn hedgerow. This hedgerow extends into a treeline further north and south, and the east of the is bordered by a ruderal strip and arable field. The hedgerow and treeline is bordered by the Hurns Gutter to the west. Habitats in the surrounding area include arable fields, hedgerows, treelines, ruderal, and semi-improved grassland. The hedgerow in which the detector sat forms part of a larger treeline of willow, ash and oak, which extends further north and south. To the east, an area of scrub comprised of grass species, nettle and previous crop plants sits directly adjacent to the detector location. This is bordered by an arable field. To the west the treeline borders an area of semi-improved grassland which then extends on to another arable field. It was considered that there was some potential for low levels of light pollution from the poultry farm located to the north-west, although this was predicted to be minimal due to the treeline acting as a buffer between this and the static detector. The surrounding area was considered likely to form a relatively dark corridor which may be favourable for use by bats in an area of predominantly arable land which is largely unsuitable for bats. This deployment location is situated within ~30m of working area for the dismantling of pylon XCP005, and new build pylon XC424 will be constructed ~90m to the east.
Static 3a	SE 46219 41513	3a was deployed on an elder tree within a disused area of Darrington Quarry. This area was previously used as an access track for site vehicles. The surrounding habitats include hardstanding, neutral semi-improved grassland, scattered/continuous scrub, broadleaved

Static detector reference/location	Grid reference	Description of deployment location
		woodland, arable fields, and an active quarry. To the north and west of the static detector, there is an area of broadleaved woodland, followed by neutral semi-improved grassland. This is bordered to the north by the A64. To the south of the deployment location, an area of both continuous and scattered scrub of predominantly hawthorn and bramble acts as a buffer between this and the quarry which sits further south. These southern habitats were considered to receive considerable light pollution from the quarry as there is limited tall vegetation to act as a buffer, however the detector was deployed in a disused area which receives little direct light. To the north, there was expected to be moderate light pollution from the A64, though this was expected to be reduced due to the presence of the woodland which would act as a buffer. The broad-leaved woodland could offer a suitable dark corridor of habitat through the quarry and grassland. This deployment location is situated within the Order Limits approximately 70m northeast of pylon XC482 and is situated at the southern border of the scaffold location for the overhead line works over the A64, between span XC481 - XC482.
Static 3b	SE 46730 41577	3b was deployed on an elder tree in scrub within the disused area of the quarry. This area was previously quarried but has since been allowed to recolonise with habitats such as scrub, broad-leaved woodland, tall ruderal in addition to areas of open ground. Light pollution was expected to be minimal in this area because this section of the quarry is cut off from the active quarry via a large land mass. Due to the relatively remote and undisturbed nature of this location, it was considered likely that this area could provide a favourable, dark habitat suitable for bats. This deployment location was situated approximately 390m east of the Order Limits.
Static 4a	SE 46730 41577	4a was deployed at the base of a a hawthorn hedgerow which runs east to west, dividing two arable fields. The surrounding habitat is predominantly arable fields, with a strip of semi-improved neutral grassland running adjacent to the hedgerow in which the detector is located. Tower XC497 is located ~10m to the east of the detector. A treeline borders the arable field to the east, which runs alongside the Cock Beck, and develops into woodland further north. Light pollution the deployment location was expected to be minimal due to the trees acting as a buffer to this light. It is likely that the hawthorn hedgerow may provide a suitable habitat for the

Static detector reference/location	Grid reference	Description of deployment location
		bats to use for commuting if moving between more favourable habitats or has some potential to be used for foraging. This deployment location was situated at the western border of the working area for pylon XC497 which will be modified as part of the works. A section of the hedgerow in which the static sits may need to be removed to enable works to take place. An access track for pylon XC496 is also located ~40m northeast of the static location.
Static 4b	SE 46747 37110	4b was deployed at the base of a treeline located at the eastern boundary of an arable field. The treeline is mainly composed of species such as willow, oak and ash, and borders the Cock Beck as it flows along the eastern edge of the field. To the west, a strip of semi-improved grassland separates the treeline from the arable field. To the north, there is a larger area of semi-improved neutral grassland, which has a tall sward height and numerous grass species within. Light pollution was considered likely at this location due to the proximity to the B1217 and other settlements, however the treeline would form a buffer to much of this light. This treeline could provide favourable habitat for bats in terms of foraging, potential roosting and commuting in an area that is otherwise relatively unsuitable. This deployment location was situated within the Order Limits in an area of habitat which may require removal due to its location within the working area of the reconductoring works between span XC497 – XC498.
Static 5a	SE 47794 29397	5a was deployed on a tree at the south-western edge of a woodland, bordering an arable field to the south. The surrounding habitats mainly comprise arable land, mixed plantation woodland, semi-improved grassland, and hedgerow. The woodland is surrounded on all sides by arable land. The A1 borders the western edge of the field in which the detector was located, and to the east lies the farmhouse, semi-improved grassland, and further arable fields. Light pollution at this location was considered to originate mainly from the A1. The hedgerow was considered to act as a buffer against further light pollution originating from the farmhouse and yard located to the north-east. The woodland provides a relatively unlit dark corridor of suitable bat habitat within the wider area which is largely unsuitable.

Static detector reference/location	Grid reference	Description of deployment location
		This deployment location was positioned within the Order Limits, approximately ~20m north of the access track which will connect pylons XC523 and XC524. The working area for new build pylon XC523 is located ~60m to the west of the detector.
Static 5b	SE 48626 28987	The static detector was situated at the base of a defunct hawthorn hedgerow which forms the southern boundary of an improved grassland field, in which, Monk Fryston substation is located. The surrounding habitats include: improved grassland, broken scrub, complete and defunct hedgerow, broadleaved plantation woodland, arable land, and hard standing. There is an area of broadleaved plantation woodland located to the east and south of the detector position. The woodland to the south forms a corridor which extends from just south of the substation east towards the A162. The substation will currently emit a significant amount of light pollution, this may be shielded to a certain extent by a soil bund that surrounds the substation although there is still expected to be considerable light pollution which may reduce the potential for bats in the surrounding area. The plantation woodland to the south and east may provide suitable dark corridor in an otherwise largely unsuitable area. The detector was situated within the Order Limits, approximately 10m southwest of the working area for the new build FLT Gantries, 4YS031 and 4YS030. The existing substation is located ~90m to the west.
Static 6a	SE 56169 56103	The static detector was located on a willow tree within a broadleaved plantation woodland. This strip of woodland runs adjacent to a railway line located to its west. The surrounding habitats include: arable fields, broadleaved plantation woodland, railway embankment, species-rich hedgerow, and dense/continuous scrub. Trees within the woodland include oak, willow, hazel, and hawthorn. Light pollution is expected to be minimal, due to the distance of the detector from surrounding settlements, and the trees within the woodland are likely to act as a buffer for any surrounding light. This woodland is expected to offer a suitable habitat for bats which may extend further south via other areas of nearby woodland, for example, associated with the golf course or bordering the river Ouse. The static detector is situated within the working area for works between span SP007 - XCP013.
Static 6b	SE 56109 56066	The static detector was situated within broadleaved plantation woodland, on a willow tree. This area is the opposite side of the railway to detector 6a, and is bordered by the railway on its eastern side. To the west, the land is predominantly arable land, with some intact species rich

Static detector reference/location	Grid reference	Description of deployment location
		hedgerows, and an multiple waterbodies within the woodland to the south. A golf course, located to the south Again, light pollution is expected to be minimal, with the woodland acting as a buffer against any light pollution that may occur. This area is likely to provide a corridor of suitable bat habitat within the surrounding largely arable environment and may provide connection links to areas of woodland further south and east.
Static 7a	SE 47080 33183	The static detector was located on a fence at the south-western corner of a semi-improved grassland field which is grazed by cows. Surrounding habitats include railway embankment, semi-improved grassland, arable fields, broadleaved plantation woodland, intact species rich hedgerow, and parkland with scattered trees. Located just west of the detector is a large area of broadleaved plantation woodland with species including ash and sycamore. This forms a thin corridor along the south edge of the field, bordering the railway line. The woodland also extends further west, forming a large expanse amidst the largely agricultural surroundings. The intact hedgerow is located to the north of the detector and divides the grassland and arable fields. Some low level light spill from the farmyard located to the north, and potentially from the railway from the south may be present in this area. Overall, the broadleaved woodland is expected to provide a largely unlit dark area of habitat favourable and suitable for bats which extends further west, in an area of predominantly unsuitable arable land. The detector is located within the Order Limits, within the working area for OVERHEAD LINE reconductoring between span XC510 - XC511. An access track will border the western edge of the field, and come within approximately 10m of the static location. Trees nearby to the detector may require removal to allow works to take place.
Static 8a	SE 47064 32141	The static detector was located at the edge of a treeline on the northern boundary of the open semi-improved grassland habitat in the north of the CHP Connection Corridor. The grassland has a tall sward and some scattered bramble and gorse scrub and is bordered to the north, east and west by a line of trees that separated the CHP Connection Corridor from the adjacent industrial and residential buildings. There is no security lighting directly within the grassland area but surrounding industrial buildings to the west have security lighting that has a low level of light spill on the otherwise dark area of grassland/tree habitat. The line of trees acts as a buffer to surrounding light pollution.

Table H.2 – Weather data during static detector recording

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
24/09/2021	06:54	18:58	Waning gibbous	14	13	18	17	89	92	20	25	Passing clouds	Passing clouds
25/09/2021	06:56	18:55	Waning gibbous	17	15	18	16	93	90	14	6	Passing clouds	Passing clouds
26/09/2021	06:58	18:53	Waning gibbous	16	13	17	15	89	79	8	17	Passing clouds	Passing clouds
27/09/2021	06:59	18:50	Last quarter	16	15	12	9	85	76	21	12	Passing clouds	Passing clouds
28/09/2021	07:01	18:48	Last quarter	10	9	11	9	86	94	13	12	Clear	Passing clouds
03/10/2021	07:13	6:40	Waning crescent	8	4	11	8	87	86	24	21	Fair	Partly cloudy
04/10/2021	07:15	6:38	Waning crescent	9	7	10	7	92	92	23	13	Partly cloudy	Fair
05/10/2021	07:16	6:35	Waning crescent	10	9	10	6	97	85	19	47	Light rain	Light Rain/Windy
06/10/2021	07:18	6:33	New Moon	10	4	12	8	79	82	47	13	Mostly Cloudy / Windy	Mostly cloudy
07/10/2021	7:20	6:30	Waxing crescent	13	10	17	14	95	90	13	21	Mostly cloudy	Partly cloudy
21/10/2021	7:46	5:58	Waning gibbous	7	0	7	2	85	80	29	27	Fair	Fair
22/10/2021	7:48	5:55	Waning gibbous	9	3	9	7	80	90	32	19	Partly cloudy	Partly cloudy
23/10/2021	7:50	5:53	Waning gibbous	9	7	11	4	94	71	14	32	Mostly cloudy	Mostly cloudy
24/10/2021	7:52	5:51	Waning gibbous	10	5	12	9	78	89	16	21	Mostly cloudy	Fair
25/10/2021	7:54	5:49	Waning gibbous	11	8	9	6	91	87	24	14	Fair	Fair
20/04/2022	05:53	20:15	Waning Gibbous	7	5	12	6	84	72	12	13	Clear	Clear
21/04/2022	05:50	20:17	Waning Gibbous	5	4	13	5	87	71	11	18	Clear	Passing clouds

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
22/04/2022	05:48	20:19	Last Quarter	6	6	11	5	99	83	21	22	Passing clouds	Passing clouds
23/04/2022	05:46	20:21	Last Quarter	7	5	11	6	93	84	22	22	Passing clouds	Passing clouds
24/04/2022	05:44	20:23	Last Quarter	6	5	10	5	96	84	21	22	Passing clouds	Scattered clouds
02/05/2022	05:30	8:39	Waxing crescent	10	9	9	6	94	92	10	16	Mostly cloudy	Light rain
03/05/2022	05:28	8:41	Waxing crescent	8	6	11	8	96	88	10	10	Mostly cloudy	Partly cloudy
04/05/2022	05:26	8:43	Waxing crescent	10	8	10	6	93	87	14	26	Fair	Fair
05/05/2022	05:24	8:45	Waxing crescent	8	5	13	8	91	85	23	21	Fair	Fair
06/05/2022	5:22	8:46	Waxing crescent	10	8	11	10	92	99	19	13	Fair	Light Rain
07/05/2022	5:20	8:48	Waxing crescent	10	6	9	5	93	86	19	11	Fair	Fair
08/05/2022	5:18	8:50	Waxing crescent	6	4	13	7	98	78	8	16	Fair	Fair
09/05/2022	05:13	20:50	Waxing Gibbous	9	7	16	13	90	66	11	30	Passing clouds	Passing clouds
10/05/2022	05:11	20:52	Waxing Gibbous	14	11	16	11	76	56	28	27	Passing clouds	Passing clouds
11/05/2022	05:09	20:54	Waxing Gibbous	11	10	13	8	78	72	25	20	Clear	Passing clouds
12/05/2022	05:08	20:55	Waxing Gibbous	9	8	13	9	89	71	13	21	Passing clouds	Passing clouds
13/05/2022	05:06	20:57	Waxing Gibbous	10	10	14	11	83	72	28	24	Passing clouds	Passing clouds
14/05/2022	05:07	09:00	Waxing Gibbous	11	7	15	6	88	60	16	11	Fair	Fair
24/05/2022	04:49	21:15	Waning Crescent	10	8	13	9	88	73	22	18	Clear	Passing clouds
25/05/2022	04:48	21:16	Waning Crescent	10	9	14	10	80	75	14	19	Passing clouds	Scattered clouds

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
26/05/2022	04:47	21:18	Waning Crescent	11	10	15	10	85	69	17	28	Passing clouds	Passing clouds
27/05/2022	04:45	21:19	Waning Crescent	10	7	13	8	74	68	22	28	Clear	Passing clouds
28/05/2022	04:44	21:20	New Moon	8	6	14	8	81	66	18	12	Clear	Passing clouds
05/06/2022	04:40	9:32	Waning Crescent	8	6	10	9	87	98	16	16	Mostly cloudy	Mostly cloudy
06/06/2022	04:39	09:33	Waning Crescent	9	8	12	8	97	87	16	10	Mostly cloudy	Fair
07/06/2022	04:36	21:32	First Quarter	10	8	17	12	87	79	11	13	Passing clouds	Sunny
08/06/2022	04:35	21:32	Waxing Gibbous	12	11	16	12	99	76	12	24	Light rain, fog	Passing clouds
09/06/2022	04:35	21:33	Waxing Gibbous	12	10	16	15	86	81	16	16	Passing clouds	Partly sunny
10/06/2022	04:34	21:34	Waxing Gibbous	14	12	18	13	81	54	22	26	Passing clouds	Passing clouds
11/06/2022	04:34	21:34	Waxing Gibbous	13	11	17	12	81	74	24	19	Clear	Scattered clouds
12/06/2022	04:34	21:35	Full Moon	12	11	14	10	86	77	19	25	Passing clouds	Scattered clouds
13/06/2022	04:33	21:36	Full Moon	10	9	14	9	90	70	14	15	Passing clouds	Scattered clouds
24/06/2022	04:36	09:43	Waning Crescent	15	11	17	10	89	72	8	26	Fair	Fair
25/06/2022	04:37	09:43	Waning Crescent	15	8	12	6	78	76	24	11	Fair	Fair
26/06/2022	04:37	09:43	Waning Crescent	10	6	15	7	81	65	14	19	Fair	Fair
27/06/2022	04:38	09:43	Waning Crescent	13	7	12	5	76	69	23	11	Fair	Fair
28/06/2022	04:38	09:43	Waning Crescent	11	5	15	10	75	82	16	21	Fair	Light rain
29/06/2022	04:39	09:43	New Moon	13	11	15	11	94	83	16	5	Light Rain	Partly cloudy

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
30/06/2022	04:40	09:42	Waning Crescent	14	10	12	10	87	96	13	23	Fair	Light Rain Shower
01/07/2022	04:40	09:42	Waning Crescent	12	11	13	10	96	84	21	16	Partly cloudy	Light Rain Showe
02/07/2022	04:41	09:42	Waning Crescent	13	9	13	8	82	78	26	19	Partly cloudy	Fair
03/07/2022	04:42	09:41	Waning Crescent	11	9	13	9	90	81	16	21	Fair	Fair
04/07/2022	04:43	09:41	Waning Crescent	13	9	13	9	82	81	26	24	Fair	Mostly cloudy
05/07/2022	04:44	09:40	Waning Crescent	12	8	13	9	86	80	34	21	Fair	Partly cloudy
08/07/2022	04:47	09:38	Waxing gibbous	15	12	16	13	93	88	26	23	Fair	Partly cloudy
09/07/2022	04:48	09:37	Waxing gibbous	15	12	16	11	90	83	32	26	Partly cloudy	Fair
10/07/2022	04:49	09:36	Waxing gibbous	13	11	18	11	96	77	23	19	Fair	Fair
11/07/2022	04:50	09:35	Waxing gibbous	16	11	21	12	89	65	8	13	Fair	Fair
12/07/2022	04:51	09:35	Waxing gibbous	20	13	21	11	67	66	14	16	Fair	Fair
14/07/2022	04:54	09:32	Waxing gibbous	13	9	12	9	83	84	26	21	Fair	Fair
15/07/2022	04:55	09:31	Waxing gibbous	13	10	13	10	90		24	83	Fair	Fair
16/07/2022	04:56	09:30	Waxing gibbous	12	9	17	10	91	69	21	19	Fair	Fair
17/07/2022	04:58	09:29	Waxing gibbous	15	10	23	10	78	51	11	10	Fair	Fair
18/07/2022	04:59	09:28	Waxing gibbous	21	11	26	9	56	40	16	8	Fair	Fair
23/07/2022	05:06	09:21	Waning crescent	13	11	18	11	94	86	11	21	Mostly cloudy	Mostly cloudy
24/07/2022	05:08	09:20	Waning crescent	18	15	17	14	89	89	34	27	Mostly cloudy	Partly cloudy

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
25/07/2022	05:10	09:18	Waning crescent	16	13	16	10	91	92	23	21	Light rain shower	Mostly cloudy
26/07/2022	05:11	09:17	Waning crescent	12	9	13	10	88	93	10	8	Mostly cloudy	Mostly cloudy
27/07/2022	05:13	09:15	Waning crescent	12	10	17	10	100	75	11	13	Fog	Fair
01/08/2022	05:21	09:06	Waxing crescent	14	9	17	11	87	87	16	26	Mostly cloudy	Mostly cloudy
02/08/2022	05:23	09:05	Waxing crescent	18	15	20	15	90	86	26	27	Mostly cloudy	Light rain
03/08/2022	05:24	09:03	Waxing crescent	19	14	19	12	88	82	24	27	Light rain	Fair
04/08/2022	05:26	09:01	Waxing crescent	15	12	15	7	81	74	14	29	Fair	Fair
05/08/2022	05:28	08:59	Waxing gibbous	11	7	12	7	81	79	23	26	Fair	Fair
08/08/2022	05:33	08:53	Waxing gibbous	14	12	16	10	92	78	16	23	Fair	Fair
09/08/2022	05:35	08:51	Waxing gibbous	13	8	19	50	86	68	16	11	Fair	Fair
10/08/2022	05:37	08:49	Waxing gibbous	16	11	21	8	77	61	3	5	Fair	Fair
11/08/2022	05:38	08:47	Full Moon	19	9	22	9	69	52	5	8	Fair	Fair
12/08/2022	05:40	08:45	Waning gibbous	18	11	20	10	72	59	5	10	Fair	Fair
13/08/2022	05:42	08:43	Waning gibbous	16	10	20	10	75	73	10	10	Fair	Fair
14/08/2022	05:44	08:41	Waning gibbous	17	12	21	13	91	68	13	11	Fair	Fair
01/09/2022	06:16	08:00	Waxing crescent	14	11	16	11	90	82	16	14	Mostly cloudy	Partly cloudy
02/09/2022	06:17	07:57	Waxing crescent	13	11	17	10	92	79	8	16	Mostly cloudy	Fair
03/09/2022	06:19	07:55	Waxing gibbous	15	14	19	13	94	77	10	10	Fog	Fair

Date	Sunrise	Sunset	Moon phase	Max Temperature (°C) am	Minimum Temperature (°C) am	Max Temperature (°C) pm	Minimum Temperature (°C) pm	Humidity % am	Humidity % pm	Max wind speed (km/h) am	Max wind speed (km/h) pm	Weather Observations am	Weather Observations pm
04/09/2022	06:21	07:53	Waxing gibbous	17	11	19	13	79	81	11	10	Fair	Fair
05/09/2022	06:23	07:50	Waxing gibbous	18	14	18	13	90	82	19	14	Light rain	Light rain
06/09/2022	06:24	07:48	Waxing gibbous	14	13	16	12	95	88	8	8	Mostly cloudy	Partly cloudy

Annex 8H.2 – Scientific names

Common name	Scientific name
Common pipistrelle	*Pipistrellus pipistrellus*
Soprano pipistrelle	*Pipistrellus pygmaeus*
Nathusius pipistrelle	*Pipistrellus nathusii*
Noctule	*Nyctalus noctula*
Serotine	*Eptesicus serotinus*
Leisler's bat	*Nyctalus leisleri*
Myotis sp.	*Myotis species*
Daubenton's bat	*Myotis daubentonii*
Brandt's bat	*Myotis brandtii*
Whiskered bat	*Myotis mystacinus*
Brown long-eared	*Plecotus auritus*

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Annex 8H.3 – Aerial tree climbing inspection limitations

Tree reference	Extent of survey undertaken	Constraint
TR36	Partial inspection	One Moderate suitability PRF not fully inspected due to extensive and complex cavity through which the endoscope could not be fully manipulated.
TR39	Partial inspection	One Moderate suitability PRF not inspected due to bees/wasps.
TR44	N/A	Access refused.
TR47	Partial inspection	One Moderate suitability PRF not fully inspected due to squirrel drey present.
TR48	Ground level	Unsafe to climb due to ash dieback; one ground-level feature inspected with endoscope.
TR69	Partial inspection	One Moderate suitability PRF not inspected due to wasp nest present.
TR73	Partial inspection	One High suitability PRF not fully inspected due to extensive size and hidden cavities through which the endoscope could not be fully manipulated.
TR75	Partial inspection	Three Moderate suitability PRF not inspected due to safety concerns caused by advanced ash dieback.
TR85	Partial inspection	One High suitability PRF not fully inspected due to extensive and complex chambered cavity through which the endoscope could not be fully manipulated.
TR86	Partial inspection	One High suitability feature not fully inspected due to extent and safety as the tree is hollow.
TR88	Ground level	Unsafe to climb due to ash dieback and active wasp nest.
TR89	Partial inspection	One High suitability PRF not fully inspected due to a complex cavity through which the endoscope could not be fully manipulated.
TR97	Partial inspection	Both High suitability PRF not fully inspected due to extensive and complex chambered cavities through which the endoscope could not be fully manipulated.

Tree reference	Extent of survey undertaken	Constraint
TR99	Partial inspection	One High suitability PRF not fully inspected due to extensive cavity as the tree is hollow.
TR100	N/A	Could not access due to large area of Himalayan Balsam.
TR103	N/A	Could not access due to large area of Himalayan Balsam.
TR107	N/A	Could not access due to large area of Himalayan Balsam.
TR108	Ground level	Unsafe to climb due to bracket fungi on every limb, signs of heartwood rot, a wasp nest and overhead high voltage lines.
TR109	N/A	Could not access due to large area of Himalayan Balsam.
TR122	Ground level	Unsafe to climb due to complete covering of fruiting bodies of fungus.
TR130	Partial inspection	Several PRF not fully inspected due to safety concerns around reliable anchors at height. Recommended using a MEWP.
TR140	Partial inspection	One Moderate suitability PRF not fully inspected due to extensive and complex chambered cavity through which the endoscope could not be fully manipulated.
TR149	Partial inspection	Two Moderate suitability PRF not inspected due to bee's nest present.
TR150	Partial inspection	Five Moderate suitability PRF not assessed due to climber safety as a result of fruiting bodies of fungus on the tree and inability to fully inspect extensive and complex chambered cavities which the endoscope could not be fully manipulated through.
TR162	Ground level	Unsafe to climb as all limbs are dead and no safe anchor points present.
TR163	Ground level	Unsafe to climb due to advanced ash dieback causing there to be no safe anchor points.
TR167	N/A	No access, unable to survey.
TR173	Partial inspection	Unable to climb and inspect one PRF within a dead hollow limb at upper extent of the tree due to lack of safe access points – assessed from ground level with torch and binoculars. Other features inspected aerially.

Tree reference	Extent of survey undertaken	Constraint
TR176	Partial inspection	Unable to climb and fully inspect one PRF within a dead limb with multiple crevices ~6m above ground level due to condition – partially inspected by endoscope. Other features inspected aerially
TR184	Ground level	Unable to aerially inspect due to tree health and condition.
TR192	Ground level	Unable to climb safely due to tree condition. Features able to be inspected from ground.
TR199	Ground level	Unable to climb safely due to tree condition. Features able to be inspected from ground.
TR203	N/A	No access, unable to survey.
TR225	N/A	No access, unable to survey.
TR226	N/A	No access, unable to survey.
TR229	Ground level	Tree overhangs river - not suitable to climb. Features able to be inspected from ground.
TR245	Ground level	Unable to aerially inspect due to tree health/condition. Features able to be inspected from ground.
TR256	Ground level	Unable to climb due to tree condition. Features able to be inspected from ground.
TR265	Ground level	Unable to climb due to tree condition.
TR284	Ground level	Tree largely hollow – unsafe to climb.
TR311	Partial inspection	Climbed, but not able to be fully inspected. Two hazard beams over road unsafe to access.
TR320	Ground level	Unsafe to climb, hollow and very damaged. Also, in close proximity to overhead lines.
TR348	Ground level	Very close to national speed limit road. Not suitable to climb.
TR349	Ground level	Tree close to active highway. Not suitable to climb.

Tree reference	Extent of survey undertaken	Constraint
TR372	Ground level	Tree unsafe to climb due to deadwood.
TR379	Ground level	Tree unsafe to climb.
TR415	N/A	No access, unable to survey.
TR444	Ground level	Endoscope does not fully extend into one PFR (basal rot) due to tight angle.
TR456	Ground level	Unable to climb. Dense ivy-covered dead tree.
TR462	Ground level	Unable to fully assess due to ivy cover. Unsafe to climb.
TR467	Ground level	Unsafe to climb, ash dieback.
TR516	Ground level	Unsafe to climb.

Annex 8H.4 – Manual transect survey results

Date	Species recorded	Number of passes	Notes
Transect 1			
12 October 2021	Soprano pipistrelle	18	First bat, a soprano pipistrelle, recorded at 18:46 (21 minutes after sunset), commuting along a northwest to southeast hedgerow adjacent to a ditch ~30m away from the Order Limits, and approximately ~60m southeast of the location of the new pylon YN007. Foraging activity was detected as the transect route passed the western edge of a woodland, approximately ~0.54km east of the Order Limits. Bats were also seen foraging along the treeline which borders the access track between the northern and southern fields, which is less than ~10m away from the proposed access trackway for the new pylon YN007, and culvert location. Bats were also recorded commuting along the treeline which runs north to south, within the working area for the construction of the pylon YN004.
	Pipistrelle species	2	
26 April 2022	Common pipistrelle	9	First bat, a common pipistrelle, recorded at 21:33 (67 minutes after sunset) commuting along tree line. Bats were seen commuting and foraging along the treeline which borders Moor Gutter, which runs northeast-southwest. At its closest point, the area of bat activity was approximately ~10m west of the proposed access track location for pylon YN006. The activity recorded at the western point of the Moor Gutter is also within approximately ~10m of the proposed bridge location across the Gutter. Bats were also detected commuting along the treeline which runs north-south, within the Order Limits for the construction of the pylon YN004.
30 May 2022	Common pipistrelle	15	First bat, a soprano pipistrelle, recorded at 21:53 (30 minutes after sunset). Bat activity was focused on the treeline bordering the Hurns Gutter, which runs east-west, and the western edge of the woodland to the east of the transect route. Continuous bat commuting and foraging activity was detected along the treeline, continuing from the woodland until midway along the field margin, which runs northwest-southeast. This is located approximately ~0.80m southwest of the Order Limits at its closest point. Bats were also recorded along a hedgerow which runs northeast-southwest, along the northern border of the transect route, which is approximately ~0.22km northwest of the Order Limits. Activity was also detected
	Soprano pipistrelle	30	

Date	Species recorded	Number of passes	Notes
			along the treeline which borders the access track between the northern and southern fields, which is less than ~10m away from the proposed access for the new pylon YN007, and new culvert location.
23 June 2022	Common pipistrelle	40	First bat, a common pipistrelle, recorded at 22:10 (29 minutes after sunset) commuting along a treeline which runs northwest to southeast, along the eastern border of the transect route. This is ~0.35km southeast of the Order Limits for the construction of pylon YN004. Several other commuting and foraging bats were detected along this treeline throughout the night. Bats were also heard commuting and foraging along the treelines and woodland strips which border Moor Gutter and the western edge of the transect route. At its closest point, an area of bat activity was approximately ~10m north of the proposed access track location for pylon YN006. The activity recorded at the western point of the Moor Gutter is also within approximately ~10m of the proposed bridge location across the Gutter.
	Soprano pipistrelle	6	
	Noctule	1	
	Myotis Sp.	16	
20 July 2022 (dusk)	Common pipistrelle	196	First bat, a soprano pipistrelle, recorded at 21:54 (32 minutes after sunset). Bat activity was first recorded along the treeline bordering Moor Gutter, and then further south, along Hurns Gutter, towards the area of woodland to the east. Continuous bat commuting activity, and some foraging activity was detected along the treeline, continuing from the woodland along the field margin, which runs northwest-southeast. Activity recorded at the northern point of this treeline falls within the Order Limits for works on the new overhead line line between span YN005 - YN006. The most bat activity was recorded where this treeline meets the farm track, and adjacent treeline, which runs northeast to southwest bordering the Hurns Gutter. Here, this activity falls within the Order Limits for a new culvert location over the White Sike drain, and the farm track will form an access track used by the works. Bat activity continued as the transect route followed the access track heading northeast, bordered by a treeline. Bats were observed commuting northeast to southwest along here, and feeding buzzes were heard. This farm track will form the access track used as part of the works, for access to pylons YN005, YN006, and further works. Further to this, overhead line works between span YN004 – YN005 will be located where this bat activity was recorded. Further activity was also recorded where this farm track meets the main road,
	Soprano pipistrelle	97	
	Noctule	2	
	Myotis sp.	38	
	Brown long-eared	2	

Date	Species recorded	Number of passes	Notes
			along which bats were observed using the treeline, which runs northwest to southeast, to commute along. This activity was located within and adjacent to the Order Limits for the construction of new build pylon YN004, which will also require the removal of a section of the adjacent treeline. The last bat was recorded at 00:12, in this vicinity.
21 July 2022 (dawn)	Common pipistrelle	93	First bat recorded was observed commuting along the treeline that borders Moor Gutter, which runs northeast to southwest. This activity was recorded approximately 20m north of the Order Limits for a proposed access trackway location. Additional activity was recorded further west along Moor Gutter, within the Order Limits for the construction of a new bridge over the Gutter for access to pylon YN007 and further work locations. Bat activity was also observed further north of this along Moor Gutter, the closest of which fell ~30m north of the Order Limits. To the east of this, further bat activity was recorded along the treeline bordering the farm track, which runs northeast to southwest. Bats here were seen foraging and commuting back and forth along the treeline, which falls within the Order Limits for the working area for new build pylon YN005. Bats activity was also recorded along the treeline where the farm track meets the road. This activity falls within the Order Limits for the construction of new pylon YN004, and its associated access tracks. More bat activity was recorded outside of the Order Limits, along Moor and Hurns Gutter. Bats were seen using the treelines along these watercourses to commute. At the closest point, this activity was located approximately 70m south of the Order Limits. Last bat, a soprano pipistrelle, was recorded at 04:36 (25 minutes before sunset).
	Soprano pipistrelle	72	
	Myotis	5	
23 August 2022	Common pipistrelle	57	First bat, a soprano pipistrelle, recorded at 21:31 (15 minutes after sunset) along a treeline which runs northwest to southeast, along the western boundary of the transect route. A large majority of the foraging and commuting activity was heard to the west along Hurns Gutter and the bordering treelines. Several of these calls were heard within areas likely to be impacted during the construction of a bridge across Hurns Gutter and the construction of YN005. Further activity was also recorded where the farm track meets the main road, along which bats were observed using the treeline, which runs northwest to southeast, to commute along. This activity was located within and adjacent to the Order Limits for the construction of pylon YN004, which will require the removal of a section of the adjacent treeline.
	Soprano pipistrelle	31	
	Noctule	3	
	Myotis	16	

Date	Species recorded	Number of passes	Notes
12 September 2022	Common pipistrelle	113	First bat, a soprano pipistrelle, recorded at 19:55 (25 minutes after sunset). Bat activity was focused on the western boundary of the transect along treelines bordering the Hurns Gutter. Continuous bat commuting and foraging activity was detected along these treelines, some of which falls within the Order Limits and are likely ot be impacted by the construction of a bridge and new pylon (YN005). Activity was also recorded where the farm track meets the main road, along which bats were observed using the treeline, which runs northwest to southeast, to commute along. This activity was located within and adjacent to the Order Limits for the construction of pylon YN004, which will require the removal of a section of the adjacent treeline. Bats were also detected along the treeline which runs northwest to southeast, along the eastern border of the transect route. This is ~0.35km southeast of the Order Limits for the construction of pylon YN004.
	Soprano pipistrelle	63	
	Noctule	14	
	Nyctalus sp.	1	
	Myotis sp.	55	
Transect 2			
27 September 2021	Common pipistrelle	15	First bat, a common pipistrelle, was recorded at 19:42 (50 minutes after sunset). Continuous bat activity was recorded along the river Ouse, which runs northwest-southeast along the eastern border of the transect route. This is located within the Order Limits of the works, approximately ~40m north of the working area for the construction of pylon XC421, and potentially within the area where the scaffold will be constructed to cross the river. Activity was also detected at the southwest corner of this field, along the treeline which borders the river Foss. This is located roughly ~20m west of the planned access route for pylon XC421. Further activity was detected at the southern edge of the same field, with bats using the treeline which runs northwest-southeast to forage. This section of the treeline is located approximately ~10m south of the access trackway location for pylon XCP008, within the Order Limits for the works.
	Soprano pipistrelle	18	
	Pipistrelle species	5	
	Myotis	2	
13 October 2021	Common pipistrelle	15	First bat, a common pipistrelle, was recorded at 18:46 (33 minutes after sunset). Bats were recorded foraging and commuting along the northwest-southeast treeline which borders the southern edge of an arable field, where activity has been detected previously. The bats were seen to potentially emerge from an ash tree along this treeline. This treeline is located approximately ~20m south of the access trackway location for pylon XCP008 within the
	Soprano pipistrelle	19	

Date	Species recorded	Number of passes	Notes
	Pipistrelle species	1	Order Limits for the works. Activity was recorded along this treeline, adjacent to the line works between the two new pylons XC421 - XC422. Further foraging activity was detected at the edge of the woodland bordering the Foss, at the northern edge of an arable field. This falls approximately ~70m northwest of the Order Limits. A foraging buzz was heard just south of the Foss, where the farm track meets an area the woodland. This farm track will form part of the access route for multiple pylons and is located within the Order Limits. At the most northern point of the transect route, foraging and commuting activity was recorded along the woodland edge, bordering the river. This is approximately ~0.29km north of the Order Limits. Further activity was recorded at the western edge of the transect route, which falls within the Order Limits and was detected in the area where pylon XCP005 will be dismantled.
26 April 2022	Common pipistrelle	49	First bat, a noctule, recorded at 21:14 (48 minutes after sunset). Bat activity was recorded at the eastern edge of the transect route, where the arable field borders the river Ouse. This activity falls within the Order Limits for the planned works between overhead line span XC420 – XC421. It is also located approximately 30m north of the working area for planned new pylon XC421. Activity was also recorded at the southern margin of this field along the treeline, ~20m south of a proposed access trackway location. Further activity was also recorded to the west, where the arable field meets the woodland bordering the river Foss. This activity is located within the Order Limits for the planned works, ~10m north of a planned access trackway for pylon XC421. Activity continued to be recorded along the field margins as the transect route followed the woodland west, in particular, where the farm track joins the larger arable field. Here, activity falls within the Order Limits for the overhead line works between span XC422 – XC423. Activity was recorded north of this, as the woodland curves west following the river. This activity was located approximately 100m north of the Order Limits. Finally, bat activity was heard approximately 110m south of the location of existing pylon XCP005, which falls ~20m south of a proposed access trackway for this pylon and new build pylon XC424.
	Soprano pipistrelle	42	
	Noctule	7	
31 May 2022	Common pipistrelle	79	First bat, a soprano pipistrelle, recorded at 22:02 (39 minutes after sunset) commuting north along the woodland area bordering the Foss, at the northern tip of the western field. Here,
	Soprano pipistrelle	10	

Date	Species recorded	Number of passes	Notes
	Noctule	2	the activity detected ranged from approximately ~100-230m from the Order Limits. Activity was also detected at the western edge of this field, along the same treeline. This falls within the Order Limits and is less than ~10m from the overhead line works between XCP005T - XCP004T. The most activity was recorded along the treeline which runs northwest to southeast along the southern edge of an arable and grassland field. Multiple bats were recorded here commuting and foraging back and forth along the treeline. Part of the activity recorded here fell within the Order Limits for the dismantling and subsequent construction of a new pylon XCP008. Activity was also detected to the north of this field, adjacent to the woodland where the Foss meets the Ouse. This is approximately ~60m northwest of the Order Limits. Further activity was also recorded along the hedgerow which borders the farm-track, just north of the farmhouse. This track will be used as an access trackway as part of the works. Last bat recorded at 23:32. Heavy rainfall throughout the day, but light rain at time of survey.
22 June 2022	Common pipistrelle	60	First bat, a soprano pipistrelle, recorded at 22:31 (50 minutes after sunset) commuting along the woodland bordering the Foss which runs northeast-southwest. This activity is located ~0.19km northwest of the Order Limits. Further bat activity was recorded along an area of hedgerow, adjacent to the farm track leading south towards the farmhouse. This farm track will be used as an access trackway for the proposed works. The most activity was recorded along the treeline comprising the southern border of the arable and grassland fields, where multiple bats were seen using this treeline to commute and forage. This area has had the most frequent records of bat activity of the transect, and is located within the Order Limits for the works. Activity recorded at the northern section of this treeline falls within the area in which overhead line works between stretch XC421 - XC422 will take place. Further south, part of the treeline is adjacent to pylon XCP008 which will be dismantled as part of the works. A bat was seen commuting eastwards along a line of scrub with trees. This was recorded where the arable field meets the woodland at the northern edge of the same field, adjacent to the Foss. This is located just adjacent to the proposed access route which will be used by the works. Activity was also recorded at the north of this field, where the Foss meets the Ouse, approximately 10m west of the proposed scaffold location. Lastly, bat activity was recorded adjacent to where the area of woodland meets the farm track, which again will form an access route for newbuild pylon XC422.
	Soprano pipistrelle	18	

Date	Species recorded	Number of passes	Notes
18 July 2022 (dusk)	Common pipistrelle	96	First bat, a common pipistrelle, recorded at 22:01 (36 minutes after sunset). This was recorded foraging along the treeline that borders the Foss, ~0.14km north of the Order Limits at its closest point. Activity was also recorded here later on in the survey. Bats were seen foraging and commuting along the hedgerow and treeline leading south towards the farmhouse. This hedgerow/treeline borders the access track that will be used by the proposed works. Further activity was recorded where the access track meets the arable field, adjacent to the woodland area, with bats seen commuting north to south. This falls within the Order Limits for the works and this access track will form the trackway used by the proposed works for access to new build pylons XC422 and XC421. During this survey, lots of activity was recorded on the southern bank of the Ouse. Several locations of this activity fell within the Order Limits for the works, and within the proposed scaffold locations for lines XC420 - XC421 and XCP009 - XCP008. Activity was also recorded within the Order Limits, along the treeline where the access track meets the large arable field to the west. Last bat recorded at 23:42. In this survey, the grassland field to the south which borders the Ouse was inaccessible due to the presence of cows with young. Instead, the transect followed the public footpath along the northern border of this field, and returned the same way.
	Soprano pipistrelle	22	
	Noctule	13	
19 July 2022 (dawn)	Common pipistrelle	20	Multiple passes were recorded along the riverbank of the Ouse at this point. Part of this activity fell within the Order Limits for the construction of scaffolding over the Ouse, for the construction of the new overhead line XC420 - XC421. This is also approximately 30m north of the working area for the assembly of new build pylon XC421. Activity was also recorded at the south-eastern edge of this field, bordering the treeline which runs northwest to southeast. At this point, this falls within the Order Limits, approximately 20m south of the proposed access trackway location. Further activity was located at the entrance to this field, bordering the woodland and the river Foss. This falls within the Order Limits and is located approximately 15m away from the location of the working areas for the construction and dismantling of pylons XC422 and XCP007. Activity was also recorded within the Order Limits, along the treeline where the access track meets the large arable field to the west. Lastly, bat activity was heard bordering the woodland adjacent to the Foss, approximately ~70m north of the Order Limits. The last bat, a soprano pipistrelle, was recorded at 04:00 (45 minutes before sunrise). In this survey, the grassland field to the south which borders
	Soprano pipistrelle	14	
	Noctule	1	

Date	Species recorded	Number of passes	Notes
			the Ouse was inaccessible due to the presence of cows with young. Instead, the transect followed the public footpath along the northern border of this field, and returned the same way.
23 August 2022	Common pipistrelle	77	First bat, a soprano pipistrelle, recorded at 20:25 (9 minutes after sunset), at the southern edge of the treeline which borders the southern bank of the Foss. Further activity was also recorded in this vicinity later on in the survey, just north of the farm track which runs northeast to southwest. Where the farm track meets the arable field just adjacent to this, a noctule was observed commuting west across the field. This activity falls within the Order Limits for multiple overhead line works between spans XC422 – XC423 and the working area for the dismantling of pylon XCP007. Activity was recorded further north along the Foss, with bat observed commuting and foraging along the treeline at the northern edge of the Order Limits to approximately 0.21km north of this. Multiple bats were observed foraging and commuting along a hedgerow which runs north-south, bordering the access track which leads to the farmhouse. The transect route continued to follow this farm track as it runs northeast, and further bat activity was recorded at the entrance to the easternmost field, which borders the Ouse. This activity was located within the Order Limits for a proposed access trackway location for pylons XC421 and XCP008. Bats were recorded commuting along the hedgerow and treeline that runs along the southern edge of this field. Activity was also recorded along the riverbank of the Ouse. In places, this activity falls within the Order Limits for the overhead line works between spans XCP009 – XCP008 and XC420 – XC421, and the construction of new build pylon XC421.
	Soprano pipistrelle	34	
	Common pipistrelle / Soprano pipistrelle	7	
	Common pipistrelle / Nathusius' pipistrelle	12	
	Noctule	19	
	Myotis	18	
Transect 4			
27 September 2021	Common pipistrelle	6	First bat, a soprano pipistrelle, recorded at 19:32, (40 minutes after sunset), commuting along a hedgerow eastwards, towards pylon XC497. Commuting and feeding activity was recorded further into the survey, on the opposite side of the hedgerow, within the Order Limits for the modification of the current pylon XC497. Activity was also at the western border of this field, adjacent to a hedgerow which runs north-south. This falls ~0.46km west of the Order Limits. Further activity was recorded along the treeline in the western corner of the southern field containing St Mary's Chapel, where the treeline meets the field. This is
	Soprano pipistrelle	6	
	Myotis sp.	6	

Date	Species recorded	Number of passes	Notes
			~0.27km west of the Order Limits. Incidences of single passes were also recorded at the northern border of the transect route, adjacent to the hedgerow. This activity was located within the Order Limits for modifying current pylon XC496.
13 October 2021	Common pipistrelle	37	First bat, a soprano pipistrelle, was recorded at 18:44 (31 minutes after sunset) along a hedgerow running east to west on the northern boundary of the transect route. A large percentage of the bat activity was recorded along a tree line running north to south on the eastern boundary of the transect, located ~0.12km to the northwest of the Order Limits and access to the scaffold which will be placed to the north of pylon XC498. Single passes were heard along the treeline bordering Cod Beck ~10m to the south of the access which will be placed to the north of pylon XC498 and along hedgerows bordering the arable fields, located ~0.28km west and ~0.31km west of pylons X497 and X496 respectively.
	Soprano pipistrelle	19	
26 April 2022	Common pipistrelle	12	First bat, a common pipistrelle, was recorded at 21:02 (36 minutes after sunset) along a hedgerow within the centre of the transect route. This is ~0.28km to the west of the Order Limits and 0.32km northwest of pylon XC497. All other bat activity was recorded along a tree line running north to south on the eastern boundary of the transect, located ~0.12km to the northwest of the Order Limits and access to the scaffold which will be placed to the north of pylon XC498.
24 May 2022	Common pipistrelle	53	First bat, a common pipistrelle, recorded at 21:53 (39 minutes after sunset). Bat activity was recorded along the north-eastern edge of the transect route, where an area of grassland meets the treeline, approximately ~90m west of the Order Limits. Activity was also recorded further south along the same treeline, as it runs north-south bordering Cod Beck. At this point, activity was located ~60m east of the Order Limits. Further activity was also recorded at the southern edge of the transect, adjacent to the B1217. This is approximately 30m south of a proposed access trackway location. Bat activity was also heard along the hedgerow containing pylon XC497, some of which was located within the Order Limits for the modification of this pylon. Bats were also heard commuting around the treeline which borders the western edge of the field containing St Mary's Chapel, ~270m west of the Order Limits.
	Soprano pipistrelle	4	
23 June 2022	Common pipistrelle	29	

Date	Species recorded	Number of passes	Notes
	Noctule	3	First bat a common pipistrelle, recorded at 22:27 (46 minutes after sunset) commuting along the treeline at the north-eastern edge of the transect route, where the arable field and area of grassland meets the treeline. This is ~95m west of the Order Limits. Further activity was recorded at the western border of this field, along the hedgerow that runs north to south approximately ~340m west of the Order Limits at its closest point. As the transect route followed this hedgerow further south, foraging activity was recorded, with bats using this hedgerow for commuting and were seen to be travelling northwest. This activity was located approximately 420m west of the Order Limits at its nearest point. Further activity was recorded along the hedgerow containing pylon XC497. Bats were heard either side of this hedgerow, and directly under the pylon, within the Order Limits for the proposed works. Activity was also recorded where the southern grassland field borders the woodland to its north, approximately 50m west of the proposed access trackway location. Last bat recorded at 23:36.
	Myotis	1	
20 July 2022 (dusk)	Common pipistrelle	13	First bat, a soprano pipistrelle, recorded at 21:54 (32 minutes after sunset) along a hedgerow in the centre of the transect route adjacent to existing pylon XC497. A large proportion of the bat foraging and commuting activity was recorded to the south along treelines bordering a rough species poor semi-improved grassland field. The closest activity to the Order Limits is ~10m from the access trackway to a scaffold located to the north of pylon XC498. Furthermore, calls were heard along the northern most hedgerow running east to west, ~0.23km west of the Order Limits.
	Soprano pipistrelle	17	
	Noctule	3	
	Brown long-eared	1	
21 July 2022 (dawn)	Common pipistrelle	24	Last bat, a common pipistrelle, recorded at 04:33 (28 minutes before sunrise)along a hedgerow along the northern boundary which follows a track to be used to access pylon XC496. Further calls were heard along this hedgerow adjacent to pylon X496. Activity was also record along the hedgerow either side of pylon XC497 with a further small cluster of calls recorded along this hedgerow, ~0.52km west of pylon XC497. Bat foraging and commuting activity was also recorded to the south along treelines bordering a rough species poor semi-improved grassland field. The closest activity to the Order Limits is ~10m from the access trackway to a scaffold located to the north of pylon XC498.
	Soprano pipistrelle	8	
	Brown long-eared	1	
	Common pipistrelle	19	

Date	Species recorded	Number of passes	Notes
August 23 2022	Soprano pipistrelle	12	First bat, a soprano pipistrelle, recorded at 20:42 (26 minutes after sunset) along the tree line bordering Cod Beck on the eastern border of the transect route, located ~0.37km east of the Order Limits. Several other calls were also heard in this location throughout the night. A large proportion of the bat activity was recorded along a hedgerow in the centre of the transect route, some of which were adjacent to the existing pylon XC497. Bat activity was also recorded along a tree line running north to south on the eastern boundary of the transect, located ~0.12km to the northwest of the Order Limits and access to the scaffold which will be placed to the north of pylon XC498.
	Noctule	1	
	Myotis sp.	17	
Transect 5			
29 September 2021	Soprano pipistrelle	1	First bat, a soprano pipistrelle, was recorded at 19:25 (38 minutes after sunset) commuting south along the western edge of the woodland surrounding the farmhouse. The Order Limits begin at the southern edge of this woodland, approximately 70m south of where the bat activity was recorded.
14 October 2021	No bats recorded	0	No bats recorded.
31 May 2022	Common pipistrelle	13	First bat, a common pipistrelle, recorded at 22:01 (38 minutes after sunset) commuting along an east-west hedgerow just north of the Monk Fryston substation, ~15m north of the proposed access trackway route for pylon 4YS029. Further activity was recorded along the hedgerow at the southern border of the same field, approximately 20m southwest of the proposed new build FLT Gantry location. The majority of activity was recorded along the roadside of Rawfield lane, bordering the treeline and hedgerow. This began at the entrance to the substation and continued north to the parking location. This area falls within the Order Limits for the works, which includes the dismantling, construction and modification of pylons, access routes for each, and the instalment and dismantling of overhead lines and their associated working areas. Activity was also recorded along the scrub margin dividing two arable fields, just west of the parking location, along the defunct hedgerow. This is located within the Order Limits for the works, <10m south of the proposed access trackway location and working area at its closest point.
	Soprano pipistrelle	1	

Date	Species recorded	Number of passes	Notes
23 June 2022	Common pipistrelle	72	First bat, a common pipistrelle, recorded at 22:21 (40 minutes after sunset) commuting along the hedgerow east of the substation, running north to south. This is located within the Order Limits, adjacent to the access trackway location for pylon 4YS029. Feeding buzzes were heard, and common pipistrelles were seen foraging around the gate at the south-eastern edge of the same field. This gateway forms the entrance to the field containing pylon 4YS029, and will be used as an access route. It is also adjacent to the proposed location of a new culvert over the ditch. Further activity was recorded along the southern border of this field, where the grassland meets an area of scrub, south of the substation. This is located within the Order Limits. Activity continued to be heard as the transect route continued north, along the eastern boundary of the existing substation. This activity is located within the Order Limits for the works, ~65m west of the new build FLT Gantry and adjacent to the existing substation. Further activity was also recorded along Rawfield Lane, just north of the substation. Multiple passes of common pipistrelle were recorded at several locations along the lane, stopping at the parking location. Access to the substation, as well as to the field to its north and west, will use this Lane. Multiple overhead line works are proposed to take place in this area, as well as the construction of two new pylons in the vicinity, pylon XC526 and XC525, ~29m, and ~130m away from the Lane, respectively.
	Soprano pipistrelle	2	
	Noctule	1	
20 July 2022 (dusk)	Common pipistrelle	35	First bat, a noctule, recorded at 21:49 (27 minutes after sunset) commuting along the southern border of the field containing the substation. Further activity was also heard in this area, where the grassland meets the scrub at the southwestern field corner. This activity is located within the proposed working area for the new build FLT Gantry. Activity was also recorded at the entrance to the field containing the substation, less than 10m south of the working area for new build pylon XC526. The largest concentration of activity was recorded along Rawfield Lane, just north of the substation, where bats were observed commuting north to south along the hedgerow and treeline either side of the Lane. A common pipistrelle was also seen flying in a figure of eight underneath the ash tree at the parking location, which has been identified as a potential roost location. This Lane will form the access to the substation and to the fields to the north and west. The working area for the overhead line works between pylons XC525 - XC526 is <10m away from the location of the nearest bat activity. Access to the field northwest of the substation will use an access route ~5m north of the ash tree. Further activity was also recorded along the hedgerow and
	Soprano pipistrelle	3	
	Noctule	6	

Date	Species recorded	Number of passes	Notes
			treeline which runs east-west, dividing the two arable fields northwest of the substation. This is located approximately 10m west of the access trackway route at its closest point. Activity was also heard along the treeline which borders the A63, which falls within the Order Limits for the works. The A63 will be used as access for site vehicles etc.
21 July 2022 (dawn)	Common pipistrelle	35	Last bat, a soprano pipistrelle, recorded at 04:24 (37 minutes before sunrise) commuting along the hedgerow which borders Rawfield Lane. Further activity was also recorded along this Lane one hour later. As discussed previously, Rawfield Lane will form the main access route for the substation and associated fields, and activity was recorded within the working area for overhead line works between pylons XC525 - XC526. East of this, activity was recorded at the entrance to the field containing the substation, along the hedgerow which extends west to east. Here, activity falls within the working area for new build pylon XC526, and two associated gantries, which may require hedgerow removal to enable their construction. Activity continued along the hedgerow at the eastern border of the same field. The proposed access trackway route for pylon 4YS029 will be located within ~5m of this hedgerow. Activity was recorded along the southern border of this field, which forms part of the working area for new build gantries 4YS030 and 4YS031. Further activity was recorded along the hedgerow and treeline that runs east-west, located northwest of the substation. The access route for the proposed welfare area is located within ~5m of this hedgerow and treeline. Activity was also recorded at the southern edge of the woodland that surrounds the farmhouse, west of the substation. This is located within the Order Limits for the works, within the working area for span XC550 - XC551.
	Soprano pipistrelle	4	
25 August 2022	Common pipistrelle	20	First bat, a noctule, recorded at 20:37 (23 minutes after sunset) at the southernmost point of the transect route within a grassland field, ~32m south of the existing substation and ~20m south of the proposed substation drainage pipe. Several additional calls were recorded in this corner an hour later. Activity was also recorded along the southern border of this field, which forms part of the working area for new build gantries 4YS030 and 4YS031 and along the hedgerow and treeline that runs east-west, located northwest of the substation. The access route for the proposed welfare area is located within ~5m of this hedgerow and treeline. Activity within the northern section of the transect included foraging and commuting
	Soprano pipistrelle	10	
	Common pipistrelle / Soprano pipistrelle	2	
	Noctule	6	

Date	Species recorded	Number of passes	Notes
	Serotine	1	bats along a hedgerow and treeline running east to west. The nearest call is ~10m west of the access route used works between pylons XC525 - XC526. Activity was also recorded along the western boundary adjacent to an area of plantation woodland with the stringing area of XC523 located ~55m to the northeast.
	Myotis sp.	2	

Annex 8H.5 – Preliminary Ground Level Roost Assessment (GLRA) results

Preliminary ground level roost assessment results

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR1	SE5694659821	Tree with several small splits in the bark, and some broken limbs. These features appear to be superficial.		No	Low	No
TR2	SE5695259795	Tree with two split limbs, one on the northern aspect and the other on the southern aspect.		No	Low	No
TR3	SE5676959743	Mature oak tree, with some hanging dead wood and dead branches. Some branches show signs of splitting, e.g. one large west-facing branch has a split ~10m high facing west, with another just adjacent to this. These appear to be superficial. This tree may have potential for use by a single, individual bat but is not expected to contain large roosts or a variety of roost types, therefore it has been given low potential.	Only assessed from western aspect of tree.	No	Low	No
TR4	SE 56768 59730	Mature ash with large tear out and knot hole ~9m high facing north aspect.		No	Moderate	Yes
TR5	SE 56697 59718	Standing dead tree with rot hole ~5m high facing north west aspect			Moderate	Yes
TR6	SE5664959704	Mature oak with some dead wood stumps.		No	Low	No
TR7	SE5664359698	Mature oak tree. This tree has some dead wood facing southwest and southeast branching off the		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		main trunk, around ~10m above ground. Some minor splits are present, with more around ~12m above ground facing south. A split is located within a limb on the northern side of the tree, ~16m above ground, but with an upwards aspect, which reduces its likelihood of use by bats due to its exposed nature. This tree has potential for use as a roost by individual bats as a day roost.				
TR8	SE5663659701	Mature oak tree. This tree has several splits along its branches, approximately ~7m high. A potential tear-out with a northern aspect is around ~5m above ground.		No	Moderate	Yes
TR9	SE5662259695	Tree with rot hole around ~5m high with a northern aspect. Precautionary low potential due to possible use by an individual bat as day roost.		No	Low	No
TR10	SE5661359693	Semi-mature sycamore tree. Where the main trunk forks, around ~10m above ground, there is a knot hole facing south east on a deadwood branch. Another knot hole is located ~50cm higher on the same branch facing eastwards. Two rot holes approximately ~8m high facing north are also present, with a potential birds nest in the lower hole. This tree could have potential to host a variety of bat roosts if the features lead further into the limb and tree, therefore it has been awarded a moderate roost potential.		No	Moderate	Yes
TR11	SE5659659692	Mature oak tree with soe splitting present in limbs. A deadwood stump, around ~7m high is present		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		with a western aspect. However, the opening points upwards, so is therefore exposed to the elements which may reduce roost potential. Use by bats is expected to be limited to a day roost for an individual, therefore it was awarded a low roost potential.				
TR12	SE5657759685	Mature oak tree, with knot hole located on the main trunk with a south-eastern aspect, approximately ~10m high. It is unclear whether this leads further into the tree. Also, several dead limbs are present, facing south around ~9m above ground close in proximity to the previous knot hole. Another obvious hole is present where a deadwood branch facing southwest connects to the main trunk. A tear out on the main trunk is present, approximately ~11m high facing west. If the mentioned features lead further into the tree, this oak has potential to host a number of bats in a variety of roost types.		No	Moderate	Yes
TR13	SE5657059685	Semi mature to mature oak tree, with butt rot present at the base on the south side of the tree, which may lead further into the tree. This most probably could be further investigated via endoscope. This tree has been awarded moderate roost potential, because if the hole leads into the tree, it would make it suitable for a number of bats and a range of roost types.		No	Moderate	Yes
TR14	SE 56491 59680	Mature oak with split on trunk facing north aspect that looks like leads into trunk but could be quite		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		exposed to weather elements. Rot hole ~4m high facing west aspect				
TR15	SE5675859879	Mature oak tree with multiple deadwood limbs with some splitting, approximately ~4m high, facing eastwards, ~10m high facing eastwards and ~10m high facing southwards.		No	Low	No
TR16	SE5636860169	Mature oak tree, with split located ~10m up on the south-eastern aspect. A hazard beam split is located approximately ~12m high facing south, which is likely to be used by nesting birds, as a bird was observed to enter the split during the time of survey, therefore this tree was awarded a low roost potential.		No	Low	No
TR17	SE 56358 60181	Mature oak with dead wood stumps and rot hole with deadwood branch sticking out facing south aspect		No	Moderate	Yes
TR18	SE5618460107	Mature oak, with a tear-out facing north, around ~4, above the ground. This appears to be possibly healed. A broken limb is present, approximately ~5m above ground with a north facing aspect, which may lead further into branch, but this was not possible to establish at the time of survey. This tree has been awarded a precautionary moderate just in case this leads further into the tree.		No	Moderate	Yes
TR19	SE5656858948	Mature oak tree, with a knot hole located on the south facing aspect of the tree. There are also multiple dead wood stumps and limbs present		No	High	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		around the tree. This tree has the potential to be used by a large number of bats in various roost types and therefore has been awarded a high roost potential.				
TR20	SE5659858912	Mature oak tree with ivy covering the majority of the tree. For the most part, the ivy is not expected to provide roosting areas, however in small areas it may provide potential roost features. Pro forma, the ivy could be hiding potential roost features as most of the ivy is not thicker than ~5cm. Some deadwood branches are also present around the tree. This tree has been awarded a low roost potential, as use is expected to be limited to the odd individual bat for a day roost.		No	Low	No
TR21	SE5660958894	Mature oak tree with ivy which is not a potential roost feature itself, but may be covering them. Some dead wood is also present. There is potential for use by a single bat, for example as a day roost, but overall, the tree has low suitability and roost potential. roost features. some dead wood.		No	Low	No
TR22	SE5661758884	Mature ash with ivy covering which is not a potential roost feature in itself, but may be hiding some underneath. Several dead branches are located around the tree. The tree has an overall low suitability for roosting bats.		No	Low	No
TR23	SE5664158852	Mature oak tree with rot hole in dead wood approximately ~4m above ground facing eastwards. Also, a deadwood branch is also present with		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		multiple splits, approximately ~8m high with an eastern aspect.				
TR24	SE5664658838	Semi-mature ash tree with a knot hole facing southwest, approximately ~4.5m above ground.		No	Moderate	Yes
TR25	SE5663658829	9 semi-mature trees have an ivy covering which would not be a potential roost feature in itself but could be hiding them. Species include oak, sycamore and horse chestnut. These trees have been awarded a precautionary low roost potential; in case the ivy is disguising potential features.		No	Low	No
TR26	SE5664558819	Mature oak tree with a knot hole ~4m above ground facing southwest. Several dead wood branches are present in all directions around the tree. There is some potential for roosting bats, depending on whether the knot hole leads further into the tree, therefore this tree has been awarded a moderate roost potential.		No	Moderate	Yes
TR27	SE5666558796	Mature oak with an ivy covering which is not a potential roost feature in itself, but could be hiding them.		No	Low	No
TR28	SE5666958793	Mature oak with an ivy covering which is not a potential roost feature in itself, but could be hiding them.		No	Low	No
TR29	SE5656158676	Mature oak tree, with knot hole which appears to be healed, but this is not known. This is located on the southe-astern aspect of the tree, approximately		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		~4m above ground. Several dead branches are also present.				
TR30	SE5644658544	Mature ash tree with some dead branches present in multiple directions around the tree. Two knot holes are located on a limb facing northwards, around ~5-6m above ground. One appears healed, and the other not. Multiple tear-outs are located on the northern aspect of the tree, and it was not possible to establish whether this lead further into the tree at the time of survey. One further tear-out is located on the western aspect of the tree, around ~3m above ground. This appears superficial. This tree has been assessed as having Moderate suitability, as it is not clear whether the features present lead further into the tree.		No	Moderate	Yes
TR31	SE5637458507	Mature oak tree with some dead branches present. A knot hole approximately ~7m above ground is present facing westwards, which appears as though it could lead further into a cavity. A second knot hole is located on a large limb, facing west. It is not clear whether this hole lead further into the tree. This tree has been awarded a moderate roost potential as there is potential for use by a number of bats in a variety of roost types.		No	Moderate	Yes
TR32	SE5637058504	Mature oak tree. This tree has a clear hole facing southeast, ~3m above the ground, located where a split in the tree limb has occurred, but this does not appear to lead further into the tree. Where the trunk splits in two, a gap has been created, which, again,		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		is not clear whether this leads further into the tree. This tree has been awarded a low bat roost potential as it has potential to support single bats in a day roost.				
TR33	SE5636558498	Mature oak tree with a split located ~7m above ground facing northwards. On the other side of the tree, there is another split facing south at the same height. Several dead branches are also present. Overall, this tree has been awarded low roost potential for bats due to limited access to potential cavities.		No	Low	No
TR34	SE5635858489	Mature oak tree, with a split and hazard beam approximately ~12m high facing north, and a split in a branch, approximately ~10m, high facing northwards.		No	Low	No
TR35	SE5630258277	Mature oak tree with a dead wood limb approximately ~5m high, facing south, with some potential splits. A rot hole is also present on a main limb of the tree facing east.		No	Moderate	Yes
TR36	SE5604557834	Mature oak with a cavity in an old wound leading into the trunk, approximately ~4m high facing eastwards. A rotting stump is also present, around ~5m high, slightly above the previous cavity facing eastwards. This has an open cavity but it could not be established at the time of survey whether this leads further into the tree. Splitting of bark is also present in the main cavity, facing west, around ~3-		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		4m above ground, which appears to lead further into the tree.				
TR37	SE5590456873	Mature oak tree with a split in the main bough, facing north-east, approximately ~5m above ground, with a possible entrance into the cavity above. A knot-hole is present, facing south-west towards a drain, around ~4m above ground and it is not clear whether this leads further into the tree. Multiple dead branches are present facing all directions around the tree. Another split in a branch is present, facing north-east approximately ~8m above ground, but this appears to be superficial. This tree has been awarded moderate potential as if these potential roost features lead further into the tree, then it will have the potential to host a variety of roost types.		No	Moderate	Yes
TR38	SE5590756802	Mature oak tree with various dead branches and several dead stumps. A dead branch is present facing north-west, around ~4m above ground, which has a split and some flaking bark. A similar dead branch is located just underneath the previous, approximately ~3m off ground. Further areas of bark flaking are present on several branches facing south. A hole is present facing northwards, overlooking a drain, but is is unclear whether this leads further into the tree.		No	Low	No
TR39	SE5590256750	Mature ash tree with various deadwood branches and stumps. A knot hole is present facing southeast, around ~6m above ground, but it was		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		not possible to establish whether this leads further into the tree. Two further knot holes are located on the south-eastern southern aspect of the tree. A broken branch is present facing west, but this does not appear to have potential access points. More deadwood is also present on the south-eastern side of the tree. For this reason, this tree has been assessed as having Moderate roost potential.				
TR40	SE5590056745	Semi-mature field maple. This tree has a split present on the main trunk, and a wound approximately ~4m high facing westwards. On the south-eastern aspect of the tree, there is a split near the tree base, and a wound hole facing northwards, which happens to be facing upwards so may be quite exposed to the elements.		No	Moderate	Yes
TR41	SE5589756746	Semi mature ash tree with likely superficial cracks, and some flaking bark present.		No	Low	No
TR42	SE5588656686	Sparse hawthorn scrub present along this hedgerow, including a dead tree with some splitting, but not obvious potential roost features.		No	Low	No
TR43	SE5602756390	Mature ash tree with a height of ~10m, and DBH of ~1m. One broken limb is present approximately ~4m above ground facing northwards which appears to lead further into the tree. For this reason, this tee has been awarded a moderate roost potential. Due to restraints on the survey this tree may require further survey if to be affected by works.	Unable to access opposite side of bank (SW side) due to dense vegetation	No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR44	SE5619056221	Mature ash tree, around ~8m high with a DBH of 0.7m. One knothole and some cracks on a limb facing south are present. This hole appears to be partly sealed, so may require further survey if affected by works. For this reason, this tree has been awarded a moderate roost potential.		No	Moderate	Yes
TR45	SE5626656189	Mature ash tree with a height of 8m and DBH of 1m. This tree has a tear-out present, and one small hole approximately ~4m above the ground. This hole does not appear to extend further, although may require further survey if this tree will be affected by works.	Only surveyed from western side	No	Low	No
TR46	SE 56308 56180	Mature ash with one hole ~3m up facing northwest aspect, and one knot hole ~4m high facing southwest aspect.	Only assessed from western aspect		Moderate	Yes
TR47	SE5635356107	Mature ash tree with a tear-out present approximately ~4m above ground, on the western aspect of the tree. This tree was only assessed from the western side so requires further assessment. This tree has been awarded a moderate roost potential due to the number of knot holes and dead branches present.	Only assessed from western side	No	Moderate	Yes
TR48	SE5636956092	Multiple mature ash trees along this stretch of treeline which is on the boundary of the red line. Potential roost features present include splits and knot holes, some of which appear to be superficial, and others where this is unclear. This group of trees were scored a precautionary moderate as they		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		were only assessed from the western side at time of survey.				
TR49	SE5621156064	Mature oak tree with several dead wood stumps approximately ~2m high facing southwest. It is unlikely that this leads into a cavity, so this tree has been awarded a precautionary low.		No	Low	No
TR50	SE5621256058	Mature willow with a small number of holes on a branch facing south-west around ~4m high. Butt rot is also present at the base of the tree, which has created several holes, but again, these do not appear to lead further into the tree. This tree was scored a precautionary low, as if these features were to extend further, the tree would only likely support the odd individual bat in a day roost.		No	Low	No
TR51	SE5614956119	Semi-mature willow which is a triple leader. This has a split present in a branch approximately ~3m high, facing east. This may suit an individual bat for a day roost at the most, so has been scored a low roost potential.		No	Low	No
TR52	SE5609456096	Mature willow with numerous broken branches with some peeling bark present.		No	Low	No
TR53	SE5609656089	Mature willow with hazard beam present.		No	Low	No
TR54	SE5611756070	Mature hawthorn with twisted branches and crevices present.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR55	SE5610056066	Mature hawthorn tree with wound in main trunk. This likely does not extend further into the tree, but this is partly obscured by another branch.		No	Low	No
TR56	SE5610356053	Semi-mature willow with split branches approximately ~1m high.		No	Low	No
TR57	SE5612456047	Mature willow with a split at its base, and a small crack approximately ~2m off the ground.		No	Low	No
TR58	SE5612456035	Willow tree with a small wound hole approximately ~2m high, facing north. This is not likely to extend further than what is visible.		No	Low	No
TR59	SE5612956030	Small split present in the main trunk of the tree, approximately ~2.5m high facing west.		No	Low	No
TR60	SE5613356026	Dead leaning willow with some peeling bark present.		No	Low	No
TR61	SE5613256021	Willow with several incidences of peeling bark present.		No	Low	No
TR62	SE5613256012	Semi-mature willow with a knothole approximately ~4m high on the southern aspect of the tree.		No	Moderate	Yes
TR63	SE5441256422	Mature willow with multiple dead branches present. Also, one branch shows some splitting on the northern aspect of the tree, approximately ~3m above ground, it is not clear whether this leads further into the tree. For this reason, this tree has been scored a precautionary low, with potential limited to use by an individual bat as a day roost.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR64	SE5440056431	Mature willow, with a tension split where a large limb joins the main trunk, approximately ~4m above ground with a southwestern aspect. It is unclear whether this leads further into the tree. Part of the same branch has split leaving a partial cavity, which, again, may lead further into the tree but this is unlikely. This tree was scored a low roost potential, as a possibility exists for this to be used for individual bats as a day roost.		No	Low	No
TR65	SE5440156432	Mature willow with multiple splits at the top of its trunk, approximately ~4-6m high, facing upwards. This orientation reduces its potential for bat use because it may experience increased exposure to the elements. These splits also appear superficial. Some peeling of bark is also present around the same area. This tree has been scored a precautionary low, as it is likely only has potential for use by single individuals for a day roost .		No	Low	No
TR66	SE5440056435	Mature willow with numerous incidences of cracks and dead wood. The trunk is hollowed out, and split down to the base of the tree in some areas. Hard to determine if these holes go anywhere.		No	Low	No
TR67	SE5438356450	Mature willow with a single potential roost feature comprising of a partial split in a branch approximately ~2m above ground, facing southwest. This appears to be healed, but has been awarded a precautionary low.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR68	SE5438156452	Mature willow tree with a large split in the main bough facing southwest, approximately ~5m above ground. This may lead to a cavity further inside the tree. Multiple dead branches are also present throughout the tree. A dead branch facing east has two knot holes pointing towards the ground, of which the lower hole appears healed but the higher one may lead further into the tree. Hence this tree has been awarded a moderate bat roost potential.		No	Moderate	Yes
TR69	SE5438256459	Mature willow with numerous tear outs and dead wood stumps which show some signs of splitting. There looks to be a potential cavity in a tear out approximately ~8m high, facing northeast. In addition, large branches with cracks present facing towards the watercourse may also offer roosting opportunities.		No	Moderate	Yes
TR70	SE5436356476	Semi-mature willow tree with a tension crack in the trunk approximately 1m above ground.		No	Low	No
TR71	SE5435856479	Semi-mature willow tree with tension crack in the trunk approximately 1.5m above ground.		No	Low	No
TR72	SE 54390 56194	Mature ash with hole in small tear out ~10m high on southern aspect. Cavity ~12m high facing south aspect. Couple of dead wood stumps facing northeast. Large tear out and broken branch on northern aspect but only appear to likely be superifical. Small hole on broken branch end ~3m high facing north is unikely to go far into branch.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR73	SE5435156236	Mature hawthorn tree. Multiple holes are present around the main trunk of the tree. There is a hole facing south around ~1.5m above ground, it is unclear whether this may lead further into the tree. Some splitting is present at the base of the tree, and approximately ~1m above ground, on the north facing aspect of the trunk. A hole is present approximately ~2m above ground on the main trunk facing west but is was assessed to be likely superficial. A further hole is located where a branch has previously broken off. This hole is facing upwards and exposed to the elements, which therefore reduces its potential for roosting bats. This tree has been scored a moderate roost potential.		No	Moderate	Yes
TR74	SE5435756236	Hawthorn scrub with a hazard beam present.		No	Low	No
TR75	SE 54284 56249	Mature ash with hollowing of trunk near the base of tree on the south aspect. Some dead branches, Knot holes are also present but appear to be superficial. Large tear out where tree forks but is exposed to weather.		No	Moderate	Yes
TR76	SE5423556265	Mature ash tree, with cavity present approximately ~7m high facing southwest. At time of survey, a blue tit was observed repeatedly going in and out of the hole. It is possible this cavity may be used by bats outside of nesting season. Two rotholes are present facing northeast, it was not possible to determine whether this lead further into the tree. A		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		final rothole was identified facing east, which appears to have healed. A bird box is present on the tree.				
TR77	SE5421156276	Mature ash tree with multiple knot holes present, and several wounds which all appear to be healed. A knot hole is located approximately ~5m high facing north, which appears largely healed, but there may be potential for use by an individual bat as a day roost.		No	Low	No
TR78	SE5419056279	Mature ash tree with several dead branches present. Two knot holes were located on a branch facing southwest, around ~5m and ~5.5m above the ground respectively. The lower hole was identified as healed, but the second hole may lead to a cavity further into the tree. Around ~0.5m above this, a south-facing branch appeared rotten at the end, creating a potential entrance for use by bats. In addition, on the north-eastern face of the tree, a broken branch projects out around ~3m above the ground, which has potential to be used for access by bats. A final knot hole was also identified on the tree, facing south. These features could all potentially be healed, but this tree has been awarded a precautionary moderate		No	Moderate	Yes
TR79	SE5417956282	Mature ash with one knot hole on a main limb, facing south, approximately ~9m above ground. Another knot hole is present on the main trunk, which may lead further into the tree.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR80	SE5416256287	Mature ash tree with a small number of knot holes, which all appear to be superficial and healed. On the northern side of the tree, four more knot holes were noted, including a hole approximately ~8m above ground facing east, another approximately ~6m above ground facing northeast, and two final holes approximately ~10m above ground facing east. A bird box was noted on this tree.		No	Moderate	Yes
TR81	SE5405056240	Semi-mature sycamore. A small split in a branch was identified. This was facing upwards, and thus exposed to the elements, reducing its potential for use by bats. This tree was awarded a precautionary moderate in case this leads further into the tree, although this appeared unlikely at time of survey.		No	Low	No
TR82	SE5394656235	Willow tree with split present at the top of tree.		No	Low	No
TR83	SE5393656231	Willow tree with some peeling bark present and several broken branches.		No	Low	No
TR84	SE5395456207	Mature willow tree with flaking bark, and dead wood stumps present.		No	Low	No
TR85	SE5393656205	Mature willow with six woodpecker holes on two trunks facing north to the River Foss. These holes range from approximately ~6-10m high. One hole is around ~8m above ground on the northern aspect of the tree, approximately ~10cm wide. Multiple broken branches are also present throughout the tree.		No	High	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR86	SE5393456203	Semi-mature willow tree with twin leader present. A woodpecker hole was identified on the northern aspect of the tree, around ~8m high and ~15cm wide.		No	Moderate	Yes
TR87	SE5392256194	This woodland area has multiple hawthorn scrub trees with some splits, cracks, and small holes present throughout. Trees present in this area were judged to have generally low bat roost potential.		No	Low	No
TR88	SE5391156201	Mature willow tree with several splits, cracks and deadwood stumps present. A hole was identified approximately ~8m above ground facing southeast. Another hole was found on the western aspect of the tree, approximately ~7m high.		No	Moderate	Yes
TR89	SE5387656168	Mature willow tree with two woodpecker holes approximately ~8.5m, ~10m and ~11m high respectively, all facing east.		No	Moderate	Yes
TR90	SE5388256152	Hawthorn with some splits present in branches.		No	Low	No
TR91	SE5389256135	Mature hawthorn with some deadwood stumps and split branches present.		No	Low	No
TR92	SE5388856129	Mature apple tree. Numerous incidences of dead wood and dead branches present throughout tree. A hole and split in a main limb was identified, facing south approximately ~3-4m above ground, but it was not possible to ascertain whether this leads further into the tree. The same branch has also started to hollow on the inside. Two dead branches		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		were identified, facing northwest and northeast, with a split present in each. The first of which appeared superficial, but it was not possible to ascertain this for the second branch. Because of the potential roost features identified, this tree was assessed as having Moderate roost suitability.				
TR93	SE5389156125	Mature hawthorn with several splits and broken branches present. There is a split on a branch facing southwest, around ~2-3m above ground, which appears to be superficial. Around this locality, there is also some peeling bark present, and approximately ~6m above the ground. This tree has been awarded a precautionary low.		No	Low	No
TR94	SE5389456120	Mature oak with numerous broken branches present. Two branches appear to have split from the main trunk on the western side of the tree, but no further potential roost features were identified.		No	Low	No
TR95	SE5383856150	Mature hawthorn with a split located in centre of a main limb, facing southwest, which begins approximately ~2m above ground until ~4m above ground. This does not appear to lead further into the tree. Dead wood and branches are also located throughout the tree. There are some holes at the base of the tree, seemingly created by badger activity but these do not appear to lead further into the tree. Several knot holes are also present, all of which appear healed.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR96	SE5383556150	Mature hawthorn with multiple splits and a rotting bough. These splits appear to be healed and no access points were visible. A badger sett is located at the base of this scrub.		No	Low	No
TR97	SE5381756184	Mature willow tree with two knot holes, approximately ~9m high facing east and north respectively.		No	Moderate	Yes
TR98	SE5379156187	Mature willow tree with a hole on the trunk approximately ~4m above ground facing west. A hazard beam was also identified on a branch located approximately ~5m above ground.		No	Moderate	Yes
TR99	SE5377956211	Mature willow tree with a woodpecker hole approximately ~8m high, facing south. Also, a broken branch was identified containing a knot hole, around ~10m high on the north-eastern aspect of the tree, overlooking the river. For this reason, it was unclear how far these leads into the tree. Other potential features identified also include: a crack in the bark ~4m above ground on the north-eastern aspect of the tee, a hole created from a broken branch located ~5m above ground on south-eastern aspect, a knothole approximately ~10m high on south-eastern aspect, and a wood pecker hole around ~8m high facing southeast.		No	Moderate	Yes
TR100	SE5376356221	Mature willow tree with A large amount of dead and cracked wood present. One of the main boughs, facing northwest, approximately ~3m above ground, was cracked and broken, but it was not possible to		No	High	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		ascertain whether this crack leads further into the tree. However, due to its orientation, the potential cavity could be exposed to the elements, which would reduce its suitability for bats. Another broken and rotting limb is present on the south-eastern aspect of the tree, with an opening present into a potential cavity. This is a large opening which could mean it would also be rather exposed. This tree also has several knot holes which were identified at the time of survey. Their descriptions are as follows: Knot hole on southern aspect approximately ~20m above ground. Two knot holes on eastern aspect of the tree, ~20m and ~21m high respectively. Hollowing present on the northern twin leader trunk.				
TR101	SE5374856225	Mature apple tree with a split present in the main bough, with a side branch extending to north, which could potentially lead further up into the tree, located around ~1.5m above ground. Numerous other split branches are located around the tree. Another cavity has been created where a branch has broken off the main trunk of the tree, facing north-west.		No	Moderate	Yes
TR102	SE5371156234	Mature field maple with rot hole facing present north-west approximately ~1.5m above ground. This appears to extend up into the tree, but it is not clear by how far. Another hole is also present		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		approximately 0.5m above ground, also pointing north west. This appears to be healed.				
TR103	SE5394955944	Mature oak with multiple dead wood stumps and evidence butt rot on the north-eastern aspect of the tree. This tree is likely to have Low bat roost suitability but has been assessed as Moderate as a precaution due to the potential for the feature to extend further into the tree.		No	Moderate	Yes
TR104	SE5435955002	Bat box present.		No	Moderate	Yes
TR105	SE5442454976	Bird box present.		No	Low	No
TR106	SE5483354852	Mature ash tree with a hollowing present, but this appeared too exposed to the elements and so is deemed to have limited potential for roosting bats.		No	Low	No
TR107	SE5320056144	Mature ash with a knot hole approximately ~6m above ground facing north. It is not possible to establish whether this leads further into tree. Another hole is present on a north-facing bough, around ~4m above ground with a large opening. This appeared to have a bees nest inside. A final knot hole is located on the south-eastern aspect around ~2m above ground, which is likely to be healed. Only surveyed from north side.		No	Moderate	Yes
TR108	SE5317656160	Mature willow with a cavity present in the main trunk approximately ~1.5m high, facing north. Some deadwood is also present at the top of the tree. A		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		knothole was located around ~5m above ground on the western aspect of the tree.				
TR109	SE5317356160	Semi-mature willow with a knot hole ~4m high on western aspect of the tree.		No	Moderate	Yes
TR110	SE5312056234	Mature willow with several broken branches and flaking bark.		No	Low	No
TR110	SE5311356244	Mature ash tree ~10m high and ~0.5m DBH. Two potential knotholes were identified on the eastern aspect of the tree, approximately ~2.5m and ~3m above ground respectively, on the main trunk of the tree. This may require further survey to establish whether these features lead further into the tree. The tree can be climbed.		No	Moderate	Yes
TR112	SE5256556318	Mature oak with several dead wood stumps present. No obvious potential roost features were identified at the time of survey.		No	Low	No
TR113	SE5256956217	Mature oak with multiple superficial knot holes present. No other obvious potential roost features, hence this tree was awarded a precautionary low roost potential.		No	Low	No
TR114	SE5256856215	Mature oak with multiple dead branches present. a slight opening was noted where one dead branch meets the main trunk around ~4m above ground, facing west. It was not possible to establish whether this leads into a cavity. As a result, this tree has been awarded a precautionary low, in case this hole leads into cavity. This tree has potential for use by		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		single odd individual as a day roost. It has only been assessed from western side.				
TR115	SE5224056419	Mature ash tree with hollowing in the main trunk, which extends from base of tree to approximately ~3m above ground, and possibly further into the tree limbs from the north side. A knothole is also present on the south-eastern aspect of the tree, around ~2m above the ground. This tree has been given a moderate roost potential because of the possibility this extends further into tree.		No	Moderate	Yes
TR116	SE5217456152	Mature oak ~8m high and ~0.7m DBH. One limb approximately ~0.3m wide, ~3m above ground, on the eastern side of the tree has multiple splits and cracks which could potentially extend further. A wound is also present on the north-western aspect of the tree, which is approximately ~4m above ground. Finally, a knot hole was identified on the western aspect of the tree, around ~6m above the ground. This tree has been awarded a moderate bat roost potential, as if these features extend, the tree has the potential to host a number of bats in a variety roosting type.		No	Moderate	Yes
TR117	SE5144156525	Mature oak tree with a dead branch featuring a split and potential cavity, facing north and approximately ~4m above the ground. This cavity is tilted skyward so is quite exposed to the elements, and therefore may have a lower potential for use by bats as a roost. This tree has been rated a precautionary low		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		in the event that this feature leads further into the tree.				
TR118	SE5121756059	Mature oak with hole present with a south-eastern aspect, ~3m above ground. This could possibly lead further into the tree. No other observable features were recorded at the time of survey. This tree has been awarded a precautionary moderate in the event that this feature leads further into the tree cavity.		No	Moderate	Yes
TR119	SE 51136 55808	Mature oak with multiple holes and deadwood. Large hole ~3m high on eastern aspect. Knot hole ~10m high facing southeastern apsect. On same branch there is a split where bark has peeled away.		No	Moderate	Yes
TR120	SE5105255599	Young oak with a hole present where a branch has been removed, approximately ~2m above ground with a western aspect.		No	Low	No
TR121	SE 50433 53702	Mature ash with tearout ~5m high on northern aspect; potentially exposed to weather elements. Some deadwood stumps, and branches with splits but unlikely to lead anywhere.	Only assessed from northern aspect	No	Moderate	Yes
TR122	SE5024253362	Semi-mature ash with a knothole present approximately ~8m above ground facing southeast. Another two knot holes were also recorded, both with south-eastern aspects, ~10m and ~7m above the ground respectively. It is unclear how far these features extend into the tree; therefore it has been awarded a moderate roost potential.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR123	SE4988952565	Mature oak tree with a knot hole approximately ~5m above ground facing southwards.		No	Moderate	Yes
TR124	SE4988952565	Mature oak tree with a small split in a branch approximately ~6m above ground facing east.		No	Low	No
TR125	SE4922551946	Hawthorn and willow trees with heavy coverage of ivy. The ivy is not a roost feature itself but may be hiding features within its cover. For this reason, these trees have been given a precautionary ow roost potential.		No	Low	No
TR126	SE4922451940	A probable mature willow with dense coverage of ivy, and some dead wood present. The ivy is not a roost feature in itself, but could be hiding them within it, so this tree has been categorised as having a precautionary low roost potential.		No	Low	No
TR127	SE4922851940	Mature apple tree with a rot hole facing southwest, approximately ~5m above ground. A further hole is located just behind this, which appears healed. This tree has been awarded a moderate roost potential in the event that the first rot hole leads further into a cavity.		No	Moderate	Yes
TR128	SE4893149731	Mature beech tree with some dead wood stumps containing some splits, and a wound approximately ~3.5m high, facing south. This cavity appears to contain a bird’s nest. This tree also has some holes which are superficial in appearance. A knot hole is present approximately ~7m above ground facing		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		west. This tree also has some tear-outs which appear to be healed.				
TR129	SE4891449730	Semi-mature to mature beech with a large knothole on its western aspect, approximately ~2m high. This does not appear to lead further. A hollowing is present on the eastern aspect of the tree which, again, does not appear to lead further. The final feature identified is a tear-out, located ~5m above the ground on the western aspect of the tree, with some flaking bark present in the surrounding area.		No	Low	No
TR130	SE4871449473	Semi-mature rowan tree with a deadwood cavity present and several knot holes, the description of which are as follows: Two knot holes located ~2m and ~2.2m above ground on north-western aspect of the tree Two knot holes ~2.5m and ~3m above ground on the southern aspect of the tree. One knot hole approximately ~3.5m above ground on the eastern aspect of the tree. Finally, the top of the trunk is cracked and split, which could have allowed a cavity to form within the main trunk. However, this would be exposed to the elements, decreasing its likelihood of use by roosting bats.		No	High	Yes
TR131	SE4866848971	Mature willow tree with a light ivy covering that could be disguising potential roost features.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR132	SE4816547566	Mature willow tree with a split located ~15m high on the north-eastern aspect of the tree. Another split is also present at the same elevation on the south-eastern aspect. The tree has an ivy covering which may be hiding other potential roost features. The tree also contains multiple deadwood branches		No	Low	No
TR133	SE4806947064	Mature field maple with some splitting of branches. The tree has an ivy covering which may be hiding other potential roost features.		No	Low	No
TR134	SE4817347060	Semi-mature field maple with an ivy covering which may be hiding other potential roost features.		No	Low	No
TR135	SE4817747070	Semi-mature willow tree with some split bark present.		No	Low	No
TR136	SE4817747059	Mature oak tree with multiple deadwood stems, but no obvious potential roost features.		No	Low	No
TR137	SE4823947075	Multiple semi-mature trees with an ivy covering which may be hiding potential roost features.		No	Low	No
TR138	SE4816546825	Mature ash tree with numerous rotting and splitting limbs. These branches have many openings, the majority of which go straight through the branch or appear superficial. Hole present facing east approximately ~0.5m above ground. This does not appear to lead further into the tree. Evidence of butt rot is also present at the base of the tree. This tree was also enclosed within the hedgerow and movement by bats would be restricted in this area.		No	Low	no

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR139	SE4816846822	Mature hazel tree with a hole present within the bough, facing south-east, approximately ~1ft above ground. Another hole was identified further up the tree, approximately ~1m above ground, facing northeast. This hole appears to connect to the first, and the first may lead further down towards the base of the tree. Both of these holes are orientated skyward, so could potentially be too exposed to the elements for use by bats. This tree is also located within a dense hedgerow, so access for bats would likely be reduced.		No	Low	No
TR140	SE4783746767	Mature ash tree with ivy covering. This is unlikely to form a potential roost feature itself, but may be hiding them. A large tear-out is present, as well as some splitting and hollowing at the base of the tree.		No	Moderate	Yes
TR141	SE4800346458	Hawthorn with a hollowing present, which is likely to be exposed to the elements due to its orientation.		No	Low	No
TR142	SE4800846446	Mature hawthorn with multiple splits in several limbs, and areas of rotting dead wood. These splits do not appear to lead further into a cavity. The hawthorn has fairly dense covering of bramble which restricts observations of potential roost features.		No	Low	No
TR143	SE4801346404	Hawthorn with a tear-out wound located approximately ~2m above the ground facing northwest. It is possible that this tear-out is exposed		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		to the elements due to its orientation, therefore reducing its likelihood for use by roosting bats.				
TR144	SE4765344993	Multiple scrub trees, including species such as apple etc. identified with dense covering of ivy. This is unlikely to form a potential roost feature itself, but may be hiding them.		No	Low	No
TR145	SE4765644994	Mature field maple with an ivy covering that is unlikely to form a potential roost feature itself, but may be hiding them. Some dead wood and branches are also present, but no potential roost features were identified at the time of survey.		No	Low	No
TR146	SE4723843616	Elder scrub with a split present in a dead branch.		No	Low	No
TR147	SE4724043578	Young elder tree with a hole in a branch approximately ~1m above the ground with an eastern aspect. Another hole is also present on a branch approximately ~2m above the ground, similarly facing east.		No	Low	No
TR148	SE4723943558	Semi-mature elm tree with areas of peeling bark present.		No	Low	No
TR149	SE 46724 42425	Semi mature to mature ash with large snapped/broken off section leaving dead stump which may go into trunk. Tear out ~4m high facing southwest aspect and knot hole ~3m high facing east aspect		No	Moderate	Yes
TR150	SE4607139214	Semi-mature ash tree with a knot hole approximately ~4m above ground facing southwest.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		Numerous cracks are also present, located approximately ~3.5m above ground facing southwest.				
TR151	SE 46443 38019	Mature ash with two holes facing north aspect ~1-2m high. Cracks appear to extend upwards in to a hollow down the centre of tree.	Only assessed from northern aspect	No	Moderate	Yes
TR152	SE4651738017	Semi-mature willow with a knothole approximately ~2m above ground on the eastern aspect of the tree. Another knothole is located around ~3m above ground on the eastern aspect as well. Finally, a tear-out is present which is approximately ~2.5m above the ground, facing eastwards with some flaking bark present in the surrounding area.		No	Moderate	Yes
TR153	SE4670936977	Row of mature to semi-mature maples and notable trees, all with covering of ivy that is unlikely to form a potential roost feature itself, but may be hiding them.		No	Low	No
TR154	SE4671436963	Hawthorn scrub with covering of ivy which does not form a potential roost feature in itself but may be hiding them.		No	Low	No
TR155	SE4705632279	Area of scrub containing hawthorn and elder trees, that may have small cracks, holes and splits present.		No	Low	No
TR156	SE4705632244	Twin-stemmed mature ash tree with no obvious potential roost features, but the tree has a dense		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		covering of ivy which could be used for roosting and may conceal other potential roosting features.				
TR157	SE4701531429	Semi-mature ash with ivy covering that is unlikely to form a potential roost feature itself, but may be hiding them.		No	Low	No
TR158	SE4701731420	Semi-mature ash tree with ivy covering that is unlikely to form a potential roost feature itself, but may be hiding them.		No	Low	No
TR159	SE4701931405	Semi-mature rowan with ivy covering that is unlikely to form a potential roost feature itself, but may be hiding them.		No	Low	No
TR160	SE4702131404	Mature rowan tree with a tear-out approximately ~15m high on the southern aspect of the tree.		No	Low	No
TR161	SE4702631401	Mature double-stemmed ash tree with several narrow deadwood branches and flaking bark present. Three small knot holes are also present, which appear quite open to the elements. These are located on the southern side of the tree, and have limited potential to provide shelter for roosting bats. Another knot hole was also identified approximately ~10m above the ground on the northern aspect of the tree.		No	Low	No
TR162	SE4703331398	Mature ash tree with hollowing in the trunk, visible from the southern aspect of the tree. This cavity appears mostly exposed with little roosting opportunities, except for a ~20cm cavity located approximately ~4m above ground with some lose		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		bark surrounding this. A knot hole was also identified approximately ~5m above ground on the northern aspect of the tree.				
TR163	SE4727331246	Semi-mature sycamore tree with a knothole located approximately ~1.5m above ground facing southeast. Another knothole was identified around ~4m high with a north-eastern aspect.		No	Moderate	Yes
TR164	SE4731031144	Semi-mature sycamore tree with several shallow knot holes and cracks present at the end of a dead branch.		No	Low	No
TR165	SE4731131135	Semi-mature sycamore tree with a shallow knot hole approximately ~4m above the ground, with an eastern aspect.		No	Low	No
TR166	SE4747130037	Mature ash tree with a number of rot holes present around ~5-6m above ground, on the southern aspect of the tree, all of which appeared healed. This tree was assigned a score of precautionary low.		No	Low	No
TR167	SE 58073 59816	Mature tree with multiple splits and deadwood branches. Two splits observed in main bough facing north-west. Potential knot hole facing south-west pointing upwards - not visible from the ground.		No	Moderate	Yes
TR168	SE5807559818	Large ash with branches overhanging the roadside, with shallow splits where the branches meet the trunk. Cankers are present along some branches but these are unlikely to be deep.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR169	SE5805959875	Mature oak with missing limbs and cracks, and a small amount of peeling bark.		No	Low	No
TR170	SE5805759884	Mature oak which overhangs the road, with some dead branches and missing limbs.		No	Low	No
TR171	SE5794259769	Dead tree with some small knot holes, peeling bark, and cracks present.		No	Low	No
TR172	SE5724659806	Mature oak with several cankers and deadwood splits in branches. Broken branch approximately 4m high facing east.		No	Low	No
TR173	SE5723659802	Mature pedunculate oak with multiple cankers and dead wood stumps. Two adjacent knot holes ~3m high facing east which may extend into a cavity. Dead wood has some splitting and peeling in areas, which may extend further into tree, but is facing upwards so may be too exposed for use as a roost.		No	Moderate	Yes
TR174	SE 57233 59802	Mature pedunculate oak, with several cankers, deadwood branches, splitting of branches, and stumps. Knot hole facing south-east ~9m high, another knot hole ~8m high facing west. A large hole is present ~15cm wide, ~6m high facing south-west.		No	High	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR175	SE5722659801	Mature pedunculate oak with multiple PRFs including a tear out leading to a cavity facing east ~4.5m high, multiple deadwood branches and stumps with splits in multiple directions, a split in a branch facing north ~8m high, and a split at the base of the twin leader boughs, which may extend further into tree.		No	Moderate	Yes
TR176	SE 57215 59799	Mature pedunculate oak with a dead limb at ~5m height with cracks and holes extending up the trunk. A missing limb is located at ~3m height, creating a large hole/crack/cavity. Some small knot holes are present in branches >10m high. Fungus on a branch could indicate decay.		No	Moderate	Yes
TR177	SE5720759792	Oak with small cankers and splits in broken branches. Small hole on trunk which is unlikely to be deep.		No	Low	No
TR178	SE5720459796	Oak with several cankers and cracks along its branches. These are unlikely to be deep crevices.		No	Low	No
TR179	SE5719659802	Oak with splits along its branches.		No	Low	No
TR180	SE5694359754	Mature pedunculate oak with a knot hole at ~4m height facing north-west, which is partially healed. A potential second knot hole is located at ~8m height facing south, and dead branches with splits located in multiple directions around tree.	No access to survey southern side of tree.	No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR181	SE5693559755	Pedunculate oak with broken and chopped limbs, which has led to large splits in the tree, several of which face upwards and therefore may experience waterlogging. Fissures located along one limb ~2.5m from the ground. The bark is peeling in places.		No	Moderate	Yes
TR182	SE5692959755	Mature oak with some dead wood branches and stumps with splitting. Some small crevices at the base of the tree.		No	Low	No
TR183	SE 56920 59750	Mature pedunculate oak. Two small degenerating/ dead limbs at ~5m height are cracked and may soon fall off to reveal/create a roosting feature. Larger cracked limbs are present at ~10m height. Fungus indicates a potential rotting branch. Assessed only from south side.		No	Moderate	Yes
TR184	SE 56902 59748	Ash tree with large cavity in trunk. Several smaller holes are also present, as well as some broken limbs, although these are facing upwards and may be too exposed to provide roosting potential.		No	High	Yes
TR185	SE 56864 59750	Mature pedunculate oak with frequent deadwood branches and stumps with splitting where branches have fallen. Some small crevices are at the base, which do not appear to extend further into the tree. A knot hole, which may be healed, is located at ~5m height facing north-east. Another knot hole is present facing south-east. Precautionary moderate.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR186	SE 56853 59751	Pedunculate oak. One hole noted on trunk with potential to be fairly deep.		No	Moderate	Yes
TR187	SE5684859747	Mature oak with missing limb at 4m height. Superficial knothole at ~4.5m, and peeling bark on a branch at ~7m height. A hole is located at the point where the limb has fallen, but this is likely to be unsuitable for bats due to its angle, making it too exposed to rainfall.		No	Low	No
TR188	SE5684459749	Mature oak with some dead branches and occasional splits where branches have broken off. Some small splitting of bark is located at its base, forming small crevices.		No	Low	No
TR189	SE5684059749	No PRFs observed in those branches overhanging the track. Broken branches are located to the north, although these are unlikely to be deep crevices.		No	Low	No
TR190	SE5683759739	One trunk of the twin leader oak is dead, producing some tall deadwood with superficial knot holes and peeling bark. Alive twin leader has no potential features for roosting bats.		No	Low	No
TR191	SE5682659741	Pedunculate oak. Gaps between the root base, low in tree with fairly small entrances. Broken-off limbs and woodpecker holes present, although these are unlikely to be deep.		No	Moderate	Yes
TR192	SE 56816 59740	Mature pedunculate oak with some butt rot at its base, which may extend further into the tree. Knot hole is located at ~4m height, facing south-west		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		(too high to determine whether it extends further into the tree). A large wound is located at top of the tree where the main branch has fallen, creating splits and gaps in bark. Small amount of dead wood is present.				
TR193	SE5680859735	Large oak with a limb removed. Superficial cracks present in limbs throughout tree.		No	Low	No
TR194	SE5680659735	Standing deadwood (oak) with a fissure and peeling bark at a height of ~1-2m.		No	Low	No
TR195	SE5679459738	Mature oak with several dead branches and splits. A dead branch is located at ~9m height facing north-west. Precautionary low.		No	Low	No
TR196	SE 56793 59739	Pedunculate oak tree with multiple holes in trunk and splits in limbs. A large hole is located beneath the roots.		No	High	Yes
TR197	SE5673959730	Trunk and limbs overhanging potential access route, which have some broken branches with superficial cracks.		No	Low	No
TR198	SE5663559703	Mature pedunculate oak with splits along branches at ~7m height, and a potential tear out on the trunk at ~5m height, both facing north.		No	Moderate	Yes
TR199	SE5662759703	Mature field maple with dead wood and a large hole at ~2m height facing north-east. Another hole is located at ~3m height facing west, which may lead further into tree. Many lesions are also present, and		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		the crown opens into a gap exposed to the elements.				
TR200	SE5544757794	Ash tree with some slight splitting between branches facing south. Precautionary low roost potential.		No	Low	No
TR201	SE5538057843	Large coniferous tree with large splits where limbs have been removed on the side of the main road.		No	Low	No
TR202	SE5537457845	Coniferous tree with large cracks where limbs have been removed.		No	Low	No
TR203	SE 56095 57189	Ash with two knot holes; one facing east and the other south-west, so obscured from vision. Tree has ivy covering.	Only surveyed from north-west bank due to access restrictions.	No	Moderate	Yes
TR204	SE5609457185	Ash with multiple knot holes, probably superficial. Potentially more features which are obscured by ivy covering.	Only surveyed from north-west bank due to access restrictions.	No	Low	No
TR205	SE5608357180	Ash. Multiple superficial cracks and crevices, potentially more features which are obscured by ivy.	Only surveyed from south due to access restrictions.	No	Low	No
TR206	SE5607857172	Ash with some dead branches, and an ivy covering at the base.	Only surveyed from north-west	No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
			due to access restrictions.			
TR207	SE5607257168	Ash tree, with ivy covering near its base which may be concealing PRFs. Some dead branches in multiple locations around tree.	Only surveyed from north-west due to access restrictions.	No	Low	No
TR208	SE5607457163	Mature ash. Knot holes ~5-6m above ground. Ivy covering could further obscure more features.		No	Low	No
TR209	SE5606757157	Mature oak with possible knot hole at ~6m height facing north-east, obscured by a broken branch. Many cankers present on trunk and some occasional splitting. Assessed from north-west side, but sufficient view to assess as low.		No	Low	No
TR210	SE5606857151	Group of young ash trees. Some superficial cracks observed, but further features could be obscured from view by ivy covering. Surveyed from north-west bank, but sufficient view to assess as low.	Surveyed from north-west bank.	No	Low	No
TR211	SE5611856244	Mature oak with no PRFs observed on the limbs overhanging the field. A superficial knot hole is present at ~3m height facing north.		No	Low	No
TR212	SE5612256230	Multi-stem hawthorn twisted to form crevices, only superficial.		No	Low	No
TR213	SE5612756219	Multi-stem hawthorn twisted to form crevices, only superficial.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR214	SE5613156212	Multi-stem hawthorn twisted to form crevices, only superficial.		No	Low	No
TR215	SE5613656203	Hawthorn with entwined branches and some fairly exposed crevices.		No	Low	No
TR216	SE5614456189	Three mature/semi-mature hawthorn trees, all with crevices created from branches growing together and overlapping, and some peeling bark.		No	Low	No
TR217	SE5615056181	Hawthorn with entwined branches, and fairly exposed crevices.		No	Low	No
TR218	SE5615456175	Two mature hawthorn trees with crevices created from branches growing together and overlapping, and some peeling bark.		No	Low	No
TR219	SE5615656166	Mature hawthorn, with peeling bark, and a few crevices where branches meet and overlap.		No	Low	No
TR220	SE5616256160	Mature hawthorn with crevices and nooks, where branches have overlapped.		No	Low	No
TR221	SE5616256159	Hawthorn with entwined branches, and crevices which are fairly shallow and open.		No	Low	No
TR222	SE5622255813	Semi-mature hawthorn with peeling bark and a crevice at the twin split.		No	Low	No
TR223	SE5621955805	Mature hawthorn, with some peeling bark present and multiple crevices where branches overlap.		No	Low	No
TR224	SE5621555799	Mature hawthorn, with some peeling bark present, with multiple crevices where branches overlap.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR225	SE5553956075	Mature pedunculate oak with many spaces that appear to be superficial. Cankers and knot holes with some minor crevices are present. Cracks observed in a dead limb at ~5m height. Bird nest box present.		No	Moderate	Yes
TR226	SE 55529 56069	Large mature pedunculate oak with one hole on trunk that is potentially quite deep and some splits where branches have broken off.		No	Moderate	Yes
TR227	SE5523855993	Hawthorn tree with ivy.		No	Low	No
TR228	SE5522755972	Tree along roadside with dense ivy covering.		No	Low	No
TR229	SE 54144 56442	Mature willow beside the Foss. Large amount of standing deadwood with peeling back and cracks. Cracks in trunk and branches at ~2m, ~4m, and ~6m height, all facing south-west. Crevices in trunk ~1.5m high facing south-east. Peeling, cracked bark is also present facing south-east and east.		No	Moderate	Yes
TR230	SE5411356458	Elder trees with entwined trunks creating nooks and crannies, although these are exposed.		No	Low	No
TR231	SE5411156456	Group of mature elders with some crevices created where branches have overlapped and split, with some peeling bark and deadwood.		No	Low	No
TR232	SE5385455764	Mature hawthorn, with some small crevices where branches have joined or split and some peeling bark.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR233	SE5393355608	Small oak with one broken branch with exposed crack.		No	Low	No
TR234	SE5395455557	Ash with occasional peeling bark.		No	Low	No
TR235	SE5399355504	Oak with some splitting where branches have been flailed, but these are unlikely to be deep crevices.		No	Low	No
TR236	SE 54002 55481	Large pedunculate oak with holes leading to hollows in the trunk. Broken-off branches have left large splits and cracks in limbs.		No	High	Yes
TR237	SE5399355475	Semi-mature oak with a small amount of superficial peeling bark.		No	Low	No
TR238	SE5401255459	Oak tree with broken branches with cracks and splits which are unlikely to be deep.		No	Low	No
TR239	SE5400655474	Small ash with broken branches which are unlikely to have deep crevices.		No	Low	No
TR240	SE5400755449	Oak with some splitting where branches have broken off which are unlikely to be deep crevices.		No	Low	No
TR241	SE5402355438	Oak with some splitting where branches have broken off which are unlikely to be deep crevices.		No	Low	No
TR242	SE 54046 55392	Mature ivy-clad pedunculate oak with several decaying limbs: crack facing north ~6m height, peeling bark facing west ~6m height, crack leading into cavity facing south ~7m height, and hollow limb facing north-east ~8m height.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR243	SE 54034 55383	Standing deadwood pine with a woodpecker hole at ~2m height facing south-east. Also has a split at the crown which may increase exposure.	Unable to access woodland so assessed from roadside.	No	Moderate	Yes
TR244	SE5405155354	Semi-mature ash, has occasional stumps with some splitting but low roosting potential.		No	Low	No
TR245	SE 54062 55356	Ash with broken branches with splits which are unlikely to be deep, and some cracks in the bark. Bird box present.		No	Moderate	Yes
TR246	SE5405755344	Semi-mature ash trees with two small wounds at ~5m height facing south-east.		No	Low	No
TR247	SE5406255335	Two semi-mature ash trees, both have some broken and dead branches present but low roosting potential.		No	Low	No
TR248	SE5407755325	Oak with multiple twisting stems creating superficial crevices.		No	Low	No
TR249	SE5407355308	Semi-mature ash with a small crevice observed where branch has broken off at ~5m height facing east but low roosting potential.		No	Low	No
TR250	SE5408455287	Mature oak with some decaying branches and peeling bark. Some cracks and holes are present but these are seemingly superficial.		No	Low	No
TR251	SE5409655288	Small ash with some broken branches. No deep crevices observed.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR252	SE 54101 55269	Pedunculate oak has large knot holes leading to hollows in the trunk. Several limbs have broken off leaving large splits and cracks. Bird box present.		No	High	Yes
TR253	SE5413155209	Oak with broken branches. These splits are unlikely to be deep.		No	Low	No
TR254	SE5413755172	Semi-mature oak with a few branches with splits and peeling bark. Bird box on tree.		No	Low	No
TR255	SE5414155159	Semi-mature oak with a split branch and small number of cracks and peeled bark. Fungus observed which could indicate decay.		No	Low	No
TR256	SE 54245 55041	Large pedunculate oak with a hollow in the trunk, and several large limbs which have broken off and created splits. Treecreeper bird box in poor condition present.		No	High	Yes
TR257	SE5428355029	Ash with very small knot holes and small branches which have broken off. Resulting crevices are unlikely to be deep.		No	Low	No
TR258	SE 54313 55017	Large pedunculate oak with cracks in bark and multiple broken-off limbs.		No	Moderate	Yes
TR259	SE 54321 55015	Ash tree with knot holes within the trunks and some broken branches. Crevices have potential to be shallow. Bat box was observed on the tree.		No	Moderate	Yes
TR260	SE5433155010	Oak with some broken branches, with splits that are likely to be shallow.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR261	SE5435955004	Pedunculate oak with some broken branches, with splits that are likely to be shallow. Bat box is present.		No	Moderate	Yes
TR262	SE5436855001	Oak with knot hole which is likely to be shallow.		No	Low	No
TR263	SE5436154988	Mature ash in the woodland, with a rotting branch facing west at ~3m height, and some other shallow knot holes.		No	Low	No
TR264	SE 54385 54996	Pedunculate oak with a cracked branch and some hollows along its limbs.		No	Moderate	Yes
TR265	SE 5439654985	Mature willow within woodland. Cracks located at ~4m and ~10m height facing north, a crack left by a fallen limb is located at ~15m height facing north, and several holes located between ~5m and ~10m height facing north and south.		No	High	Yes
TR266	SE5440354990	Oak tree with broken branches with splits that are unlikely to be deep. Cracks are also present along branches.		No	Low	No
TR267	SE5442354982	Oak with broken branches, but splits are shallow. Bird box on tree.		No	Low	No
TR268	SE5444354983	Oak tree with branches that have been broken and/or removed, and small splits have appeared, but these are likely to be shallow.		No	Low	No
TR269	SE5444054969	Mature horse chestnut in woodland. Minor cracks, holes, and peeling bark with low roost potential.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR270	SE5445654964	Ash within woodland with a single hole at ~5m height facing north, which is likely to be superficial.		No	Low	No
TR271	SE5446154961	Mature ash with minor broken and deadwood branches and stumps.		No	Low	No
TR272	SE 54526 54950	Large pedunculate oak with multiple broken branches.		No	Moderate	Yes
TR273	SE5453454939	Multi-stem goat willow with minor crevices and cracks of low roosting potential.		No	Low	No
TR274	SE 54546 54935	Mature ash with some deadwood branches and stumps. Wound left where a branch has broken off tree at ~6m height facing south. Two knot holes which appear partially healed are located at ~4m and ~5m height facing south.		No	Moderate	Yes
TR275	SE5455454942	Oak tree with cracks present where branches have broken off.		No	Low	No
TR276	SE 54571 54927	Mature ash with a hole left by a missing limb at ~3m height facing south that has the potential to lead to a cavity within the tree. Upward-opening hole present at ~2m height facing north but is exposed to rain. Some minor cracks and holes in branches also present.		No	Moderate	Yes
TR277	SE 54587 54923	Mature ash with a ~30cm knot hole facing south, at ~2m height.		No	Moderate	Yes
TR278	SE5459854917	Mature ash with crevice within trunk at ~5m height facing north, which does not appear to extend		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		further. Some dead branches are also present around the tree, but low potential for roosting.				
TR279	SE5461154924	Oak tree with some broken-off small branches, with some fairly shallow and exposed splits.		No	Low	No
TR280	SE 54617 54909	Mature ash with several holes, some healed. Some peeling of bark, and deadwood is also present.		No	Moderate	Yes
TR281	SE5462354909	Mature ash, with some superficial cracking. Small holes are present on a northern branch at ~10m height. A knot hole is located at ~3m height facing south-west.		No	Low	No
TR282	SE 54635 54906	Mature ash with a possible knot hole with wound, at ~4m height facing north-west. A split within a limb facing west is also present along with some dead branches.		No	Moderate	Yes
TR283	SE5464654901	Mature ash with some small holes ~10m height facing east. A small hole created by a missing branch is located at ~10m height facing north-west, but appears superficial.		No	Low	No
TR284	SE 54651 54917	Mature ash with multiple hollows along the trunk where large limbs have broken off.		No	High	Yes
TR285	SE 54656 54920	Large ash with broken branches and woodpecker holes up the trunk.		No	High	Yes
TR286	SE 54669 54896	Mature ash with large (~30cm long) south-east facing knot hole at ~4m height, which is partially		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		healed with rotten wood inside. Some dead branches with peeling bark are also present.				
TR287	SE5468454900	Small ash. Some thin branches have snapped but unlikely to provide shelter.		No	Low	No
TR288	SE5474254882	Hawthorn with entwined branches creating crevices which are very exposed.		No	Low	No
TR289	SE5481475848	Semi-mature ash, with some splits in branches and stumps from flail of low roosting potential.		No	Low	No
TR290	SE5484754836	Tree with many stems twisting to form crevices and some peeling bark, and minor cracks.		No	Low	No
TR291	SE5215956129	Semi-mature oak with few cankers and some peeling bark.		No	Low	No
TR292	SE5213456094	Oak with branch with split facing north-west, ~6m above ground. Several broken branches and healed knot holes are also present.	Assessed from the north and eastern side.	No	Low	No
TR293	SE5190955620	Multi-stem mature ash. Crevices between stems and several superficial cracked bark splits, and some peeling bark.		No	Low	No
TR294	SE 51755 55532	Mature pedunculate oak with some decaying branches creating features: cracks and holes from splitting at ~3m height facing north, decaying branches with cracks and crevices facing north-east. The cracks present on the trunk appear superficial.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR295	SE5172955519	Mature oak with several snapped branches and ivy which could conceal features of low roost potential.		No	Low	No
TR296	SE5165455472	Mature ash. Large shallow knot hole at ~4m height facing north. A snapped branch at ~5m height faces north-west but has no features resulting from it.		No	Low	No
TR297	SE5163655464	Semi-mature ash, with some evidence of rotting at the twin split, but no cavity visible. Some peeling bark is present, as well as a split limb which projects towards road, but does not appear to lead into a cavity.	Assessed from the roadside.	No	Low	No
TR298	SE5161555452	Ash tree with a few small broken branches and some ivy growth.		No	Low	No
TR299	SE5157555443	Semi-mature ash has a stump with splitting but unlikely to lead into deeper cavity. Occasional dead branches throughout.		No	Low	No
TR300	SE5145655377	Willow with small cracks in bark and splits where branches have been removed along roadside, but these are unlikely to be deep crevices.		No	Low	No
TR301	SE5143355368	Three mature chestnut trees set back from the road. All three have some peeling bark, and occasional broken branches.		No	Low	No
TR302	SE5098856242	Hawthorn with entwined branches resulting in exposed crevices.		No	Low	No
TR303	SE5099856239	Hawthorn with entwined branches, some small knots in trunk, resulting in exposed crevices.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR304	SE 51077 56005	Mature sycamore with multiple cankers, and a few stumps where branches have fallen leaving splits. Some peeling bark and periodic rotting. Knot hole ~5m high, appears healed facing west. Another knot hole is ~3m high facing west.		No	Moderate	Yes
TR305	SE5108155996	Mature horse chestnut, with occasional broken branches, and some butt rot and ivy at its base.		No	Low	No
TR306	SE 51085 55988	Mature sycamore with a possible cavity underneath branch ~4m high facing south. Some peeling bark, rotten branches and ivy are located throughout. Cankers at present at tree base. Precautionary moderate in case cavity extends further into the tree.		No	Moderate	Yes
TR307	SE 51085 55984	Mature tree with occasional splitting in stumps where branches have rotten, and some cankers and ivy growth at base of tree. Two knot holes observed, both facing west, ~10 and ~11m high. Some rotting of branches also observed.		No	Moderate	Yes
TR308	SE5108755972	Mature sycamore. Only superficial features identified - small knot hole facing west ~4m high, and some peeling bark on tree trunk.		No	Low	No
TR309	SE5107555958	Mature oak. Peeling bark, cracks, and holes on several branches facing the road, but seemingly not deep. Cankers present on trunk, as well as crevices where branches twist and cross over.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR310	SE5107555950	Standing deadwood with central cavity, but quite open to the elements/rain.		No	Low	No
TR311	SE 51155 55764	Mature oak with several superficial cracks and holes on the branches that overhang the road. The trunk has several cracks at ~6m height at a snapped limb, facing west. A small knot hole is present on a west-facing branch at ~12m height. A rotten limb faces west with a cavity and some cracks.		No	Moderate	Yes
TR312	SE5104555263	Semi-mature oak, with peeling bark, and a snapped branch with cracks within.		No	Low	No
TR313	SE 51024 55145	Mature pedunculate oak with split/rotting trunk with multiple holes and cracks, that could lead to a cavity. Cracked branches present throughout. Snapped branch has a hole that could potentially be a PRF.		No	Moderate	Yes
TR314	SE5101955107	Hawthorn with entwined branches with crevices that are very exposed. Access for bats would be limited in summer when the hedgerow is in bloom.		No	Low	No
TR315	SE5101355078	A couple of twisted hawthorns with crevices present between the branches, which are very exposed. In summer, access to the crevices would be limited due to growth.		No	Low	No
TR316	SE5100755045	Twisted stems of mature hawthorns in this hedge creating crevices and some minor cracking.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR317	SE 50993 54974	Mature pedunculate oak along hedgerow with some peeling bark and several knotholes between ~2m and ~5m high, although at least one appears to be partially healed. A crevice was observed within a limb extending east, ~5m high. An upward-facing split is present running down a large limb, which may extend further into the tree.		No	Moderate	Yes
TR318	SE5108954872	Oak tree with broken branches and cracks and knots on the trunk and larger limbs. These branches are facing a road with a high volume of traffic.		No	Low	No
TR319	SE5108754648	Semi-mature ash, with a covering of ivy. Several dead/split branches present.		No	Low	No
TR320	SE 51116 54590	Pedunculate oak. Very exposed hole in main trunk of tree, and some dead wood with potential hollows. Bird box located on western aspect.		No	Moderate	Yes
TR321	SE5101854389	Large oak tree with broken branches and cracks in bark.		No	Low	No
TR322	SE5062054407	Semi-mature ash, with one healed knot hole and occasional peeling bark.		No	Low	No
TR323	SE5078854018	Row of ivy-clad semi-mature ash trees which line a ditch, of low roosting potential.		No	Low	No
TR324	SE5078754027	Mature ash with some flaking of bark, and superficial wounds. Many knot holes, some of which are healed/partially healed. Unhealed splintered hole ~10m high facing towards track.	Assessed from roadside due to limited access	No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR325	SE5077754025	Mature ash with a knot hole ~11m high facing south. Hole appears to extend but depth is unclear from the ground. Another knot hole is located ~3.5m high, facing north-west, which again appears to extend.	Assessed from roadside due to limited access	No	Moderate	Yes
TR326	SE5077154020	Two semi-mature ash trees with a dense covering of ivy which appear to have small superficial wounds and occasional dead branches - of low roost potential only.	Assessed from trackside due to limited access.	No	Low	No
TR327	SE5076454021	Semi-mature ash with a dense ivy covering, of low roost potential only.	Assessed from trackside due. to limited access.	No	Low	No
TR328	SE5076054026	Semi-mature horse chestnut with some damage from recent flailing which has left small superficial splits in a few branches.		No	Low	No
TR329	SE5074154025	Mature multi-stemmed ash with occasional deadwood and jagged stumps, and some flaking bark. A north-facing crevice has formed on the eastern stem at ~2m height where two branches have welded together, but it is unclear how deep this extends into the tree.	Assessed from trackside due to limited access.	No	Moderate	Yes
TR330	SE5073354025	Semi-mature sycamore, with some superficial cavities, likely from damage due to flailing.	Assessed from trackside due to limited access.	No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR331	SE5072954027	Sycamore with several leaders, with branches and trunks which have entwined, leading to shallow crevices. Most of these are ~2m from the ground.		No	Low	No
TR332	SE5071854030	Large ash with a canker ~10m above the ground on the main trunk, with some potential cracks and crevices due to decay. Several cut and split branches are present. One south-facing knot hole on the trunk is ~2m high.		No	Moderate	Yes
TR333	SE5070454030	Large ash with knot holes present along its trunk, but these appear to be shallow. One cut branch overhanging the track is ~8m above ground but cracks are shallow.		No	Low	No
TR334	SE5066654028	Large ash tree with several knot holes along trunk ~2.5m to ~6m above ground. These holes are likely to be fairly shallow, but further aerial assessment is required to confirm. Several larger branches have broken off, leaving splits along the remainder of the branches.		No	Moderate	Yes
TR335	SE5064954014	Crack willow with multiple leaders, one of which has a split, leaving cracks in the remainder of the trunk ~3.5m above ground. However, these cracks appear fairly shallow and are upward-facing and exposed to the elements.		No	Low	No
TR336	SE5063354011	Cut limb and broken branch ~ 2m from ground has resulted in several shallow cracks in the bark, but low roost potential only.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR337	SE5006652615	Large ash tree with one small knot hole that could potentially lead to a cavity. Multiple broken limbs that have left fairly large splits facing downward. Most PRFs noted on roadside.		No	Moderate	Yes
TR338	SE 50039 52600	Large oak with broken branches that have caused splits along the remainder of the branch. A couple of knot holes are present but these appear fairly shallow.		No	Moderate	Yes
TR339	SE5003052583	An ivy-clad elder with snapped branches that have left splits, of low roost potential only.		No	Low	No
TR340	SE 50029 52579	Ash with multiple limbs with thick ivy growth, and a number of rot holes which are ~1m to ~2m above ground.		No	Moderate	Yes
TR341	SE5002452579	Ash with ivy on the trunk. Crevices were observed in certain areas, but low roost potential only.		No	Low	No
TR342	SE5001752578	Mature ash with twin leads. A covering of dead ivy is present throughout. Some broken limbs and branches with splitting also present in all directions, but low roost potential only.		No	Low	No
TR343	SE5001552575	Two ivy- clad mature hawthorns with low roost potential only.		No	Low	No
TR344	SE5001052569	Ivy-clad semi-mature ash with low roost potential only.		No	Low	No
TR345	SE5000052569	Mature oak with twin leaders and sparse ivy growth. Some scattered branches and stumps are present		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		throughout. Possible crevice where twin leads have welded. A knot hole is present ~8m high facing south, which appears healed.				
TR346	SE4999752564	Mature oak at the woodland edge. Mature ivy growth present on trunk and sparse ivy on branches.		No	Low	No
TR347	SE4996552553	Birch within woodland pond with ivy-clad branches reaching over road, with some splitting and cracks present. Shallow crevices have formed where the stems twist and cross but roosting potential is low.		No	Low	No
TR348	SE 49953 52546	Mature ash tree with dense ivy covering throughout. A knot hole was recorded facing south-west ~7m high. The tree has some dead branches with flaking bark throughout. Precautionary moderate potential.		No	Moderate	Yes
TR349	SE 49946 52539	Large oak with cracks and splits along its branches, and dense ivy growth, precautionary moderate potential.		No	Moderate	Yes
TR350	SE 49912 52546	Mature oak with several snapped limbs, cracks and holes. Some peeling bark was recorded on higher branches. Precautionary moderate potential.		No	Moderate	Yes
TR351	SE4991152539	Mature oak. Some deadwood and splintered stumps where branches have broken off, and some ivy cladding around main trunk. A small north-facing hole ~3.5m high is present, low roosting potential only.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR352	SE4988852522	Oak with broken branches. Splits have formed where the branches have snapped off which are likely to be shallow and exposed.		No	Low	No
TR353	SE4871349501	Crab apple with many stems that twist and cross over to create shallow crevices. Also, some minor cracking and peeling bark is present. A small hole is located on the eastern side, ~3.5m above ground, low roosting potential only.		No	Low	No
TR354	SE4871449498	Mature crab apple. Some peeling bark and split branches throughout. Appears to have been recently flailed.		No	Low	No
TR355	SE4871649491	Hawthorn with entwined branches. Resulting crevices are shallow and exposed.		No	Low	No
TR356	SE4871649483	Hawthorn on eastern side of hedgerow with entwined branches and knot hole on one of the limbs ~2m high. Precautionary moderate potential.		No	Moderate	Yes
TR357	SE 48926 48439	Large mature oak. Missing limb has created a large crack on the south-eastern side of the tree, ~5m high. A hole is present just below this which could lead to a cavity. Missing branches have snapped on the north-eastern side, with some cracking and holes present. Some superficial cracks and crevices located higher up the tree.		No	Moderate	Yes
TR358	SE4832148509	Mature sycamore, with a few healed wounds, and some overlapping branches. Some rotting was also identified at the twin split.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR359	SE4830648489	Two multi-stem elders that twist together to form crevices. Also cracks and snapped branches are present, but these cavities appear shallow.		No	Low	No
TR360	SE4854047233	Mature oak with deeply ridged bark forming superficial cracks and crevices in some places. A small, damaged branch facing north ~10m high has some flaked bark at the end. A hole has also been created by a fallen limb ~10m high, facing north-east.		No	Low	No
TR361	SE4846847202	Mature oak. Bark splitting present throughout but gaps are likely to be superficial. A broken branch facing the roadside has some splitting in the stump, which is likely to be a superficial cavity. Occasional dead stumps present throughout. Low roost potential where twin leaders join.		No	Low	No
TR362	SE4846747199	Two mature hawthorns with some overlapping of branches and some peeling bark, low roost potential only.		No	Low	No
TR363	SE4842147094	Mature oak. Numerous cankers throughout, and some scattered dead branches. Hole ~8m above ground facing north-east, appears healed. Light ivy covering, as well as some cracks within the bark in places provide low roosting potential only.		No	Low	No
TR364	SE4829947104	Semi-mature oak with a dense ivy covering and occasional dead branches and chipping of bark present.	Adjacent dense holly growth restricted access.	No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR365	SE4829347103	Semi mature oak. Dense ivy covering is present and a dead branch projects north, ~4m above ground.		No	Low	No
TR366	SE4814847057	Ivy-clad tree - precautionary low roost potential.		No	Low	No
TR367	SE 48109 47037	Mature pedunculate oak with dead limb facing south-west at ~12m height, and some small holes and cracks also present which could lead to a larger cavity inside.		No	Moderate	Yes
TR368	SE 48121 47047	Mature pedunculate oak with light covering of ivy. A dead branch present has a hole and a split facing south, ~8m high, which may extend further. Another hole was observed facing south, ~4m high, partially concealed by ivy, but may extend further into a cavity.		No	Moderate	Yes
TR369	SE 48436 47004	Mature ivy-clad pedunculate oak which overhangs access track. A tear-out is present facing south at ~8m high, with crevices at its edges, and some small healing knot holes on same branch. Pruning scars evident on a branch overhanging the road and a small hazard beam is present, forming small crevices that appear superficial. Precautionary moderate roosting potential.		No	Moderate	Yes
TR370	SE4847046849	Mature oak, with a light ivy covering in places. A healed knot hole was observed, with occasional broken and dead wood branches.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR371	SE4848546830	Semi-mature sycamore. Two knot holes were recorded, both facing south-west at ~4m high, both of which are likely to be superficial.		No	Low	No
TR372	SE 48499 46792	Mature pedunculate oak with a dense ivy covering throughout. A split dead branch is present, projecting east, ~3m high. The tree has peeling bark in places and areas where branches overlap. Precautionary moderate roosting potential.		No	Moderate	Yes
TR373	SE4857046715	Mature ivy-clad oak which overhangs road. Snapped branches have left small bark crevices, and several small hazard beams with callous edges were present. Tear outs and cracks in branches over road were also observed.		No	Low	No
TR374	SE4794746663	Mature hawthorn with dense dead ivy growth. The tree has flaking bark and some cavities, which have formed where branches overlap. The tree is maintained as part of the hedgerow.		No	Low	No
TR375	SE4860246591	Two mature alders with heavy ivy cladding. Occasional deadwood branches projecting out.		No	Low	No
TR376	SE4860646583	Standing deadwood with peeling bark and mature ivy.		No	Low	No
TR377	SE 48606 46580	Mature pedunculate oak with ivy covering. Multiple dead branches project out towards road. One branch ~5m high has a split running through its centre which may extend further, but is likely quite shallow. Some peeling bark was also recorded.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR378	SE4861346551	Semi-mature ivy-clad oak with western limb overhanging the road. This limb has a decaying branch with superficial cracks and swollen bark causing a crevice, low roosting potential only.		No	Low	No
TR379	SE 48615 46539	Mature willow with dense ivy covering throughout. Peeling and splitting bark is present in places. The base of the tree has partly rotted away, creating a large cavity, ~1m high with multiple nooks.		No	High	Yes
TR380	SE4861946524	Mature oak with some branches over hanging the road. Some branches to the south have no bark and have cracks, and there is a callous swelling at the stem, which is likely superficial.		No	Low	No
TR381	SE4862646474	Mature ivy-clad oak with some branches over hanging the road. Peeling bark is present on a rotten limb, with some cracks and knot holes, which could form superficial features on the southern side, and a cracked branch on the eastern side.		No	Low	No
TR382	SE 48625 46467	Mature pedunculate oak with light ivy covering. Occasional cankers and dead branches seen throughout. Hole ~2m high facing west, which is partially healed. Precautionary moderate roost potential.		No	Moderate	Yes
TR383	SE 48505 46267	Mature ash tree with heavy ivy covering around base. The tree has multiple healed knot holes, and holes are also visible within the dense ivy, leading to mostly shallow crevices. A small hole is located ~7m high facing south.	Assessed from the south due to limited access.	No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR384	SE4849946254	Multi-stem hawthorn with superficial crevices where stems overlap and intertwine, although these are mostly quite low to the ground.		No	Low	No
TR385	SE4840346225	Multi-stem mature ash with ivy on the main trunk. Overlapping branches cause crevices within ivy, low roost potential only.		No	Low	No
TR386	SE 47452 45460	Mature ash tree. Numerous healed knot holes with one facing east, ~8m high (projecting upwards). It was not possible to tell how far this extends into the tree due to its height, and may lead into a cavity, but will likely be exposed to the elements. A healed wound is located at ~1m high facing west. Precautionary moderate roost potential.		No	Moderate	Yes
TR387	SE4746445454	Mature hawthorn with some deep fluting and overlapping of stems, causing superficial crevices. Some minor wounds from rubbing adjacent trees and its own branches.		No	Low	No
TR388	SE4746145448	Multi-stem hawthorn with overlaps causing small crevices. Some very superficial cracks and peeling bark.		No	Low	No
TR389	SE4749744019	Hawthorn with entwined branches but these are very low to the ground (~1m), and the crevices shallow.		No	Low	No
TR390	SE4749444018	Hawthorn with entwined branches but these are very low to the ground (~1m), and the crevices shallow. A small amount of ivy is present.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR391	SE4749043987	Group of mature, leggy hawthorns. Generally, these have some flaking bark, minor superficial holes and splits in limbs, and some crevices where branches have overlapped. These trees may have low suitability for use as minor transitional roosts.		No	Low	No
TR392	SE4748743983	Hawthorn with entwined branches and shallow cracks in the bark, and a shallow knot along the main trunk, ~2m from the ground.		No	Low	No
TR393	SE4747743984	Hawthorn with entwined branches ~2m to ~2.5m from the ground along the trunk.		No	Low	No
TR394	SE4748343978	Mature, mostly dead elder, with some peeling and flaking of bark, broken stumps, and a few occasional, superficial holes. Some splitting is present down the centre of one stem, but this cavity appears superficial.		No	Low	No
TR395	SE4748143975	Mature hawthorn tree, with crevices and some superficial holes formed where branches have overlapped while growing. Some flaking bark and occasional superficial splitting in branches. This tree has low roosting potential for use as a transitional roost.		No	Low	No
TR396	SE4747143967	Hawthorn with entwined branches ~1.5m from ground, and subsequent crevices shallow and exposed.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR397	SE4729643713	Mature sycamore with some branches overhanging the road, some superficial peeling bark, and rotten branches facing north-west, ~4m high.		No	Low	No
TR398	SE4723843618	Elder bush with split in a dead branch.		No	Low	No
TR399	SE4723943560	Semi-mature elm with some peeling bark.		No	Low	No
TR400	SE4719643212	Mature sycamore with some branches overhanging the track. Some peeling bark observed on the trunk, as well as some rotten and missing limbs facing south-west at ~4m and ~7m. Multiple knot holes were recorded with crevices at their edges. A tear out is present at a branch facing the track (west) at ~4m high, with some superficial cracks and crevices.		No	Low	No
TR401	SE4719843150	Alder with ivy cover. The ivy does not appear thick enough to conceal PRFs.		No	Low	No
TR402	SE4719843142	Ash with ivy cover on roadside. The ivy does not appear thick enough to conceal PRFs.		No	Low	No
TR403	SE4720243124	Mature beech with limbs overhanging the track. A knot hole and some pruning damage are located at ~3m high, on western side.		No	Low	No
TR404	SE4720943051	Mature ivy-clad sycamore on the side of the road. No visible PRFs, but low roosting potential due to dense ivy cover on the main trunk which may conceal features.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR405	SE4723642955	Mature horse chestnut with peeling bark. The tree has some missing limbs with associated cracking.		No	Low	No
TR406	SE4725542957	Two sycamores on the side of the road. Dense ivy cover on trunk and limbs may conceal any features. Low roosting potential.		No	Low	No
TR407	SE4727842962	Six mature sycamores on the side of the road, all of which have dense ivy cover on the trunks, which may conceal features. All trees have low roost potential.		No	Low	No
TR408	SE4730842973	Mature horse chestnut with a large tear out in trunk, which is mostly healed so no cavity was visible, but the remaining swollen bark forms crevices.		No	Low	No
TR409	SE4731342978	Mature horse chestnut with hole leading to a small cavity, and some superficial peeling bark.		No	Low	No
TR410	SE4732642977	Two horse chestnut trees, all with dense ivy cover. Trees are located ~2m from road.		No	Low	No
TR411	SE4732642976	One horse chestnut and one hawthorn, both with ivy cover which does not appear dense enough to conceal features. Precautionary low bat potential.		No	Low	No
TR412	SE 46349 41877	Mature beech with some healed knot holes and ivy cladding in places, which is likely not thick enough to act as a PRF but may conceal minor features. No other PRFs observed.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR413	SE 46359 41871	Semi-mature beech on the side of the road. Ivy cover on the trunk may conceal features or act as a PRF.		No	Low	No
TR414	SE 46366 41866	Semi-mature beech adjacent to road with ivy cladding which may conceal PRFs and form crevices of low suitability for occasional transitional roost etc. No other PRFs observed.		No	Low	No
TR415	SE 46191 41809	Mature ash on the edge of a field, which is used as a shooting platform. A few knotholes are present, which appear to not extend. One is located ~2.5m from the ground, on the eastern aspect, which may extend further. A few cracks and splits on broken limbs are located on the western aspect.		No	Moderate	No
TR416	SE 46181 41618	Semi-mature pine with ivy cladding, likely not thick enough to act as a PRF, but may conceal minor features. No other features observed.		No	Low	No
TR417	SE4619741481	Scrub trees within this area, precautionary low roosting potential assigned.	No access, viewed from adjacent field to south.	No	Low	No
TR418	SE4619941462	Row of mature hawthorns, with overlapping branches in areas, splits and peeling of bark, and some dead wood branches. Low suitability for use as minor transitional roosts etc.	No access, viewed from west.	No	Low	No
TR419	SE4619941460	Mature hawthorn with a dead wood limb, of which the inside has rotted away, creating a cavity which	No access, viewed from west.	No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		extends into the limb. This is likely to be quite exposed to the elements and is situated ~0.5m off the ground.				
TR420	SE4615241454	Mature hawthorn with multiple stems that entwine to form superficial cavities. Some minor cracks and peeling bark.		No	Low	No
TR421	SE4612041466	Mature hawthorn. Surveyed from adjacent parcel, cannot rule out due to scrub cover obscuring view of PRFs where multi stems may overlap and form crevices and cracks.		No	Low	No
TR422	SE4600842020	Semi-mature ash trees with crossing trunks and some decaying branches without bark, and some with peeling bark, forming small crevices. Rubbing branches has caused callouses but not deep ridges. Fungus may indicate decay.		No	Low	No
TR423	SE4599842005	Semi-mature field maple with some minor wounds where branches have broken off, leaving superficial cavities. Gap has been created where a sign has been attached to tree, unlikely to be suitable for roosting; overall low potential.		No	Low	No
TR424	SE4579441724	Mature ash with dense ivy covering throughout. A few broken, deadwood branches were recorded with some minor splitting.	Assessed from roadside due to limited access.	No	Low	No
TR425	SE4585240972	Standing dead tree with loose bark at its base.		No	Low	No
TR426	SE 45825 40455	Mature sycamore with sparse ivy cladding. Flailed bordering access, creating some branches with		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		splitting. Tree has slight degradation of bark in places.				
TR427	SE 45825 40455	Two mature birch trees within woodland, which have dense ivy covering; precautionary low roosting potential.		No	Low	No
TR428	SE 45826 40442	Mature sycamore on road side. Dense ivy covering on trunk. Branches which are overhanging the road appear to have been cut.		No	Low	No
TR429	SE 45827 40427	Mature sycamore with ivy cladding which is not thick enough to act as PRF, but may conceal minor features. A healed knot hole faces the access track. Some broken branches are present, resulting from flailing along the roadside. Precautionary low roost potential.		No	Low	No
TR430	SE 45838 40396	Two mature birch trees within the woodland, with dense ivy on trunk. Precautionary low roost potential.		No	Low	No
TR431	SE 45832 40392	Mature ivy-clad sycamore on road side. Branches overhanging the road appear to be flailed. Precautionary low roost potential.		No	Low	No
TR432	SE 45835 40345	Mature sycamore, with a knot hole ~2.5m high, facing south-west. It was not possible to establish how far it extends. Some peeling of bark was also present in places. Precautionary moderate roost potential.	Assessed from roadside due to limited access.	No	Moderate	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR433	SE 45837 40284	Mature common lime. Flailing has left some broken branches facing the roadside. Tree has some cracked bark in places, but no cavities are visible. Precautionary low roost potential.	Assessed from roadside due to limited access.	No	Low	No
TR434	SE4583840220	Band of semi mature horse chestnut and birch, which have some snapped branches and tension splits, which only appear to be superficial. Precautionary low roost potential.		No	Low	No
TR435	SE4584040197	Mature ash. Some superficial bark peeling and cracking on a broken branch on the western aspect, ~12m high. A hole is present at the end of a dead branch, extending south-east, approximately ~6m high.		No	Low	No
TR436	SE4584040173	Sycamore tree with hole at ~4m high extending west, that could be leading to a cavity. A tear-out, leaving a crevice, is present on the western aspect, approximately ~7m high. A knot hole was recorded facing east, ~3m high, but this appears superficial.		No	Moderate	Yes
TR437	SE4584240164	Semi-mature ash, with a knot hole approximately ~2.5m high, facing east, which appears to be a superficial cavity.		No	Low	No
TR438	SE4584340119	Mature common lime with lots of young growth at its base. Some occasional broken and deadwood branches present as well. Precautionary low roost potential.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR439	SE4618037862	Group of three mature sycamores. All have ivy cladding. Occasional peeling and splitting of bark, with stumps present from broken off branches.		No	Low	No
TR440	SE4619637860	Mature ivy- clad oak with limbs and branches overhanging the track. A snapped limb extends north-west with low roosting potential in cavities.		No	Low	No
TR441	SE4621037859	Dense ivy on a line of mature hawthorns with possible cracks and crevices obscured by ivy. Precautionary low roost potential.		No	Low	No
TR442	SE4622437854	Mature sycamore with dead ivy covering, which may conceal minor PRFs. Many healed or superficial knot holes present all around tree, and a couple of knot holes present high up. Some peeling and splitting of bark in places.		No	Low	No
TR443	SE 46151 37940	Mature ash with limbs overhanging the track. A knot hole is present at ~9m high facing east, which could extend further into the tree. A snapped limb was observed with a hole at ~12m facing east. A tear-out scar is present at ~12m high, facing north.		No	Moderate	Yes
TR444	SE 46233 37851	Mature multi-stem sycamore. Potential butt rot hole is present at the base, which seems to lead into a cavity further into the trunk. An area of rubbing between twin leaders at the northern aspect is present at ~1.5m high. The northern trunk has a vertical split to the ground where the bark has calloused at the edges and created crevices. The		No	High	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		crack extends up to ~5m and enclosed the top portion due to bark swelling and ivy.				
TR445	SE 46245 37847	Group of mature sycamores. Two twin leads furthest from road both have splits running up the centre of the main trunk, facing north. The splits extend from the ground to ~2.5m high, but may extend further within the tree. The tree has rotted away here, creating a cavity.		No	Moderate	Yes
TR446	SE4625437845	Dead tree with heavy ivy cover. The tree also has some areas of minor peeling and splitting of bark. Precautionary low roosting potential.		No	Low	No
TR447	SE4626837841	Two mature ivy-clad sycamore trees, both with limbs overhanging the track. The eastern tree has a rotten limb on the south side, at ~8m high, which has small holes and cracks, and bark callouses around the stem wood.		No	Low	No
TR448	SE4627037840	Three mature sycamores, with ivy covering throughout, which is heavy in places. Occasional healed knots and stumps are left where branches have fallen. Occasional dead branches present throughout.		No	Low	No
TR449	SE4628137837	Two mature sycamores, both ivy-clad and with branches overhanging the track. The western tree has a covering of dense ivy. A snapped limb is present leaving cracks on the western tree facing west ~3m high. The eastern tree has a tear out or wound ~7m high on the southern aspect.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR450	SE4662337771	Mature ash which has several fairly shallow knot holes, a rotting branch with holes, and a snapped branch with cracks.		No	Low	No
TR451	SE4661637755	Tree with cracked and peeling bark. Limited crevices are present underneath the bark.		No	Low	No
TR452	SE4665237744	Sweet chestnut tree with a broken branch, which has potentially created a hollow on the northern aspect. Entwined branches provide limited shallow and exposed crevices.		No	Low	No
TR453	SE4666837742	Hawthorn with ivy that is dense and mature in places.		No	Low	No
TR454	SE4667037742	Mature ivy-clad ash with minor cracks visible.		No	Low	No
TR455	SE4668737737	Semi-mature ash with dense ivy cladding. Ivy dense enough in places to form crevices which may be suitable for occasional minor transitional roosts etc. The tree has some superficial peeling bark, and some deadwood branches.		No	Low	No
TR456	SE 46732 37730	Unknown dead tree. Limbs have been removed leaving a trunk ~5m in height which is covered in dense ivy.		No	Moderate	Yes
TR457	SE4674137728	Semi-mature ash with ivy cladding. The tree has a lot of deadwood with some minor bark peeling.		No	Low	No
TR458	SE4674637727	Mature tree clad with mature and dense ivy forming small crevices in places.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR459	SE4675737728	Ash within hawthorn hedgerow. Branches entwine in several places but crevices are small and exposed in nature. The tree has a sparse amount of ivy cover.		No	Low	No
TR460	SE4677137634	Ivy-clad cherry. Precautionary low roost potential.		No	Low	No
TR461	SE4677037620	Only PRF noticed is where two branches entwine creating a potential crevice. Approximately ~2m from the ground on the southern aspect.		No	Low	No
TR462	SE 46808 37720	Large ash with dense ivy growth. Some of the larger branches are entwined providing crevices. Precautionary moderate roost potential.		No	Moderate	Yes
TR463	SE4685437710	Mature sycamore. Ivy cladding is wide enough in places to create small crevices which may be suitable for occasional minor transitional roosts etc. Tree has some occasional broken branches with some peeling of bark.		No	Low	No
TR464	SE4696437700	Ivy-clad hawthorn which may conceal minor features. Snapped branches forming cracks present but these only appear to be shallow. Precautionary low roost potential.		No	Low	No
TR465	SE4697037697	Hawthorn and rose shrubs with entwined branches and stems, forming crevices.		No	Low	No
TR466	SE4697537697	Small ivy-clad (not mature) hawthorn with entwined stems that produce crevices between them which may be suitable for occasional minor transitional roosts etc.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR467	SE 46981 3769	Ash which splits into two major limbs. Dense ivy covers trunk and potentially creates shelter between the two limbs. Precautionary moderate roost potential.		No	Moderate	Yes
TR468	SE4700137678	Cherry with superficial crevices, some healed wounds, and a few broken branches. The tree is already maintained for access.		No	Low	No
TR469	SE4704237621	One broken branch on the eastern side of the tree, resulting in a split which is wide and exposed. Precautionary low roost potential.		No	Low	No
TR470	SE4706837566	Hawthorn with ivy, which is dense in places, creating small crevices and potentially obscuring view of further minor features. Precautionary low roost potential.		No	Low	No
TR471	SE4709137502	Mature sycamore, with ivy cladding surrounding trunk. Branches have some minor splits with some peeling bark in places. Precautionary low roost potential.		No	Low	No
TR472	SE4665437048	Young oak with ivy covering potentially obscuring view of further minor features. Precautionary low roost potential.		No	Low	No
TR473	SE4672937006	Run of mature overgrown, hawthorn hedgerow. Ivy covering is dense and could be obscuring minor features. Precautionary low roost potential.		No	Low	No
TR474	SE4637536729	Two semi-mature ash trees along the access with a few overhanging branches. Dense ivy cover on the		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		trunk which may conceal minor features. Precautionary low bat potential.				
TR475	SE4637336725	Ash tree over a stream which has dense ivy covering. A breaking limb is present over the water with crevices, cracks and a hole.		No	Low	No
TR476	SE4687736392	Silver birch with several shallow knot holes. Cracks also present running up the trunk, but again these offer limited roosting opportunities, given the exposed and shallow nature of the crevices. Precautionary low roost potential.		No	Low	No
TR477	SE4692836408	Mature silver birch with several knot holes which all appear healed or superficial. Tree has some broken bark in places and crevices in bark, which again all seem superficial. Precautionary low roost potential.		No	Low	No
TR478	SE4694636414	Silver birch with several knot holes although these are healed and don't appear to extend. Cracks are present within the bark up the trunk but these are shallow and exposed. Precautionary low roost potential.		No	Low	No
TR479	SE4696336417	Silver birch with several shallow knot holes. Several cracks are also present running up the trunk but again these offer limited roosting opportunities given the exposed and shallow nature of the crevices. Precautionary low roost potential.		No	Low	No
TR480	SE4705236443	Silver birch with several shallow knot holes. Several cracks are also present running up the trunk but again these offer limited roosting opportunities		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		given the exposed and shallow nature of the crevices.				
TR481	SE4709236439	Semi-mature ash with a wound ~1m above ground facing east, which extends slightly into a cavity above. Some peeling bark and cankers are also present in places.		No	Low	No
TR482	SE4697635118	Sycamore tree with small amount of ivy. Precautionary low roost potential.		No	Low	No
TR483	SE4743933455	Four trees with ivy cover at start of access route. Three sycamores and one horse chestnut. The ivy covering may conceal minor features. Precautionary low roost potential.		No	Low	No
TR484	SE4786633178	Four mature sycamore trees alongside access route. All have ivy cover dense enough in places to conceal minor features.	Assessed from roadside due to limited access.	No	Low	No
TR485	SE4705433130	Mature hawthorn with ivy cover which may conceal minor features. Precautionary low roost potential.		No	Low	No
TR486	SE4700032415	Hawthorn with entwined branches ~1m to 2.5m above ground. Small knot holes are also present in the trunk on the northern aspect. All crevices are shallow and exposed. Precautionary low roost potential.		No	Low	No
TR487	SE4700332414	Multi-stem hawthorn with entwined stems and branches, with elder, to form superficial crevices. Precautionary low roost potential.		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR488	SE4701732406	Two adjacent mature hawthorns with peeling bark and entwined branches forming small crevices. Broken branches are present throughout.		No	Low	No
TR489	SE4702232402	Hawthorn with entwined branches ~1.5m above ground. Resulting crevices are fairly exposed. Precautionary low roost potential.		No	Low	No
TR490	SE4702632401	Mature hawthorn with peeling bark and crevices where branches have overlapped.		No	Low	No
TR491	SE4702932398	Mature hawthorn. Peeling bark and crevices formed in places where branches have overlapped. Broken branches and stumps are also present.		No	Low	No
TR492	SE4703232398	Hawthorn with entwined branches ~1m to 2m above ground. Resulting crevices are fairly shallow and exposed. Precautionary low roost potential.		No	Low	No
TR493	SE4703432399	Mature hawthorn with entwined stems (and elder stems) to form crevices and some cracks with peeling bark.		No	Low	No
TR494	SE4711232378	Elder ~4m in height with multiple limbs that are entwined in places, creating shallow crevices. Dense ivy is also present.		No	Low	No
TR495	SE4710932375	Hawthorn with entwined branches that have created shallow crevices.		No	Low	No
TR496	SE4711232372	Mature trees along grown-out hedgerow with a dense ivy covering, thick enough to provide low		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		roosting potential in places, and potentially conceal minor features.				
TR497	SE4712132363	Young goat willow with dense ivy covering its trunk, which could offer low roosting potential.		No	Low	No
TR498	SE4713732366	Section of mature elder with lots of deadwood, some peeling bark, cavities and holes (but these are generally pointed upwards towards sky so are quite exposed to elements).		No	Low	No
TR499	SE4714432370	Stump ~2.5m in height covered in dense ivy.		No	Low	No
TR500	SE4715132372	Stump ~2.5m in height covered in dense ivy.		No	Low	No
TR501	SE4715532372	Hawthorns with dense ivy growth which creates small crevices. Precautionary low roost potential.		No	Low	No
TR502	SE4709132231	Semi-mature ash tree. Ivy cover on trunk does not appear thick enough to conceal features. There are approximately six semi-mature to mature trees to the left of the ash tree which have dense ivy cover in some parts. Precautionary low roost potential.	Surveyed from the roadside due to limited access	No	Low	No
TR503	SE4705632196	Multi-stem ash with dense ivy on its central trunks, which potentially conceals minor features. Crevices have likely formed where stems overlap.		No	Low	No
TR504	SE4703332175	Standing multi-stem deadwood tree showing signs of decay, with an ivy covering on two of the stems, which may obscure the view of further roost features. There are some superficial crevices where the stems overlap		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR505	SE4702032166	Multi-stem hawthorn group with small crevices where stems overlap.		No	Low	No
TR506	SE4701631422	Semi-mature ash with an ivy covering, that could conceal small features.		No	Low	No
TR507	SE4747130039	Mature ash tree with three healed rot holes on its southern aspect ~5m and 6m high.		No	Low	No
TR508	SE4767729833	Generally, trees within this area are newly planted with little roosting opportunities, However, a semi-mature tree line runs between the two points marked. Some of these have ivy growth. Precautionary low roosting potential.	Surveyed from adjacent field due to Health and Safety concerns.	No	Low	No
TR509	SE4752829797	Generally, the trees in this area are immature and offer no roosting opportunities. However, a semi-mature tree line runs from this point to the eastern marked point.	Surveyed from adjacent field due to Health and Safety concerns.	No	Low	No
TR510	SE4754529777	Mature ash with low potential for PRFs.	Surveyed from adjacent field due to Health and Safety concerns.	No	Low	No
TR511	SE4760229753	Mature hawthorn with potential for its twisted multi-stems to form small crevices.	Surveyed from adjacent field due to Health and Safety concerns.	No	Low	No
TR512	SE4768429592	Area of ivy-clad trees, which are mostly hawthorns, with some young trees and semi-mature ash with some peeling bark and small crevices where		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		branches have overlapped. Ivy may conceal small features. Precautionary low roosting potential.				
TR513	SE4768629589	Three mature trees - two hawthorn and one ash tree, with heavy ivy cladding which has low potential for use as a transitional roost, and may conceal smaller features. Peeling bark and overlapping of branches observed in places.		No	Low	No
TR514	SE4769029584	Mature ash, with a large broken limb creating cracked and peeling bark. The deadwood is still in place beside the tree. Cankers and cracks identified on the trunk at ~15m high. Ivy covering may conceal small features.		No	Low	No
TR515	SE4768929576	Area of ivy-clad trees dominated by hawthorns, which may conceal small features. Some peeling bark and potential small crevices where branches have overlapped.		No	Low	No
TR516	SE 47843 29421	Mature twin leader pedunculate oak with one fallen trunk. Living trunk is heavily ivy clad which has potential to conceal small features and including shallow crevices. The living trunk has a large hole which leads to a large cavity, and some small holes and cracks are visible around the tree which have the potential to extend further.		No	Moderate	Yes
TR517	SE4783029427	Mature oak with frequent cankers, dead branches and stumps. A split, appearing superficial, runs up the centre of the trunk at approximately 7m height,		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		facing south-west. Peeling bark is also present. Precautionary low roosting potential.				
TR518	SE4782529427	Mature ash with splitting in two branches ~10m high facing north-east.		No	Low	No
TR519	SE4783429419	Mature oak with several rotting branches with cracks and peeling bark. A missing limb projects south, (~5m above ground) and has a larger crack and peeling bark.		No	Low	No
TR520	SE4782129424	Ivy-clad ash which may be thick enough in localised areas to create small crevices with low potential for use as minor transitional roosts, and may conceal small features.		No	Low	No
TR521	SE4782529418	Mature oak with frequent cankers, broken stumps and dead branches. Branch ~6m above ground extending north-west has a large, partially healed split, which could form a small crevice.		No	Low	No
TR522	SE4782929411	Dense ivy on mature hawthorn has the potential to conceal small features and create shallow crevices. A shallow knot hole and snapped branch are located ~3m high on the southern aspect.		No	Low	No
TR523	SE4782729407	Hawthorn with dense ivy. Precautionary low roosting potential.		No	Low	No
TR524	SE4780429411	Semi-mature and young pine and beech trees within this section of woodland, with ivy covering which may conceal small features. Peeling bark, small crevices and occasional split branches are		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		also present. Trees have low potential for occasional use as small transitional roosts.				
TR525	SE4781629405	Ivy-clad mature oak with minor peeling bark on branches, and a missing branch hole facing north-east, ~10m high. Ivy obscures view of trunk and forms small crevices in places.		No	Low	No
TR526	SE4780229399	Trees maintained as part of 'hedgerow' including pines, beech and hawthorn. The trees have peeling bark, and ivy cladding which may conceal small features. There is potential for occasional use as minor transitional roost.		No	Low	No
TR527	SE4781829394	Mature group of hawthorns forming a hedgerow with mature ivy cladding that could form crevices suitable for occasional use as minor transitional roosts or conceal small features in the trunks.		No	Low	No
TR528	SE4790529408	Mature beech with a central crevice extending from the twin split.	Assessed from boundary fence with binoculars.	No	Low	No
TR529	SE4803429343	Mature hawthorn with dense ivy covering, up to ~8cm wide in places, which could form small crevices suitable for transitional roosts and may conceal features.		No	Low	No
TR530	SE4803629341	Semi-mature willow trees, with some areas of deadwood where branches have broken, forming some crevices. Area of peeling bark were also observed, which does not appear to extend further,		No	Low	No

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
		or is quite exposed, e.g. cavity facing upwards towards the elements.				
TR531	SE 48415 29483	Ash tree with a crack along a large branch on the eastern side, ~6m high. Several smaller branches have broken off leaving splits. One large knot hole is located on the trunk on the western side, ~2.5m high, along with several other smaller holes.		No	Moderate	Yes
TR532	SE4844329543	Deadwood tree with fallen trunk with ivy-cladding ~3m off the ground. Cracks and holes are present which are likely to become damp in wet weather.		No	Low	No
TR533	SE 48439 29549	Mature sycamore with dense ivy growth, which may conceal small features. Some smaller broken branches identified creating shallow and open splits.		No	Moderate	Yes
TR534	SE 48445 29548	Ivy-clad sycamore with some smaller broken branches creating splits which appear minimal.		No	Moderate	Yes
TR535	SE 48455 29565	Ivy-clad sycamore with multiple small broken branches creating splits which appear fairly shallow and open. Precautionary moderate roosting potential.		No	Moderate	Yes
TR536	SE 48449 29567	Large sycamore with several large broken limbs on the western side, leaving cracks and splits which may be exposed to the elements. Several small knot holes which appear shallow. Precautionary moderate roosting potential.		No	Moderate	Yes

Tree reference	NGR	PRF description	Constraint to inspection	Evidence of bats	Roost suitability	Scope in for further survey work
TR537	SE4855029301	Four mature hawthorns with some superficial crevices created from overlapping branches, and some peeling bark in places, with potential for occasional use as a transitional roost.		No	Low	No
TR538	SE4884429107	Three hawthorn trees with multiple stems that twist and cross over to create small crevices, and some cracked and peeling bark.		No	Low	No
TR539	SE4931728849	Mature multi-stem hawthorn with ivy and crevices where the stems overlap. Minor cracks and peeling bark are also visible.		No	Low	No

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National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

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