A303 Sparkford to Ilchester Dualling Scheme TR010036

6.3 Environmental Statement Appendix 8.4 Bat Technical Report

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

A303 Sparkford to Ilchester Dualling Scheme

Development Consent Order 201[X]

6.3 Environmental Statement
Appendix 8.4 Bat Technical Report

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Executive summary

The proposed A303 Sparkford to Ilchester Dualling scheme (hereafter referred to as 'the scheme') is to provide a continuous dual-carriageway on the A303 linking the Podimore Bypass and the Sparkford Bypass. All native species of bat afford full protection under the *Conservation of Habitats and Species Regulations 2017*, the *Countryside and Rights of Way (CRoW) Act 2000*, the *Natural Environment and Rural Communities (NERC) Act* and the *Wildlife and Countryside Act (WCA) 1981* (as amended). Four species of bat, comprising barbastelle, Bechstein's bat, greater horseshoe bat and lesser horseshoe bat are given extra protection, being listed as an Annex II species of the *EU Habitats Directive 1992*.

In order to assess which bat species are present in the survey area, and how habitats within them are used by these species, the following surveys were undertaken:

- tree inspections from ground level and external building inspections, to identify potential roosting features
- climb and inspect tree surveys and internal building inspections, to provide further information on potential roosting features and assess for evidence of roosting bats
- emergence and re-entry surveys to assess the presence of roosts in buildings and trees
- walked transects, to assess the activity levels and identify important commuting routes and foraging grounds of bats along defined routes within the survey area
- static bat recorded assessment, to assess activity levels and species present at designated points along walked transect routes
- crossing point surveys, to assess the impact of linear feature severance at points with the potential to be impacted by the scheme hibernation surveys, to assess the potential for buildings and trees for hibernating bats, and locate any hibernation roosts

Landscape scale transects are due to be undertaken between June and August 2018, in order to allow for the assessment of how bat use within the survey area changes as a result of the scheme.

Surveys identified the presence of 12 species of bat within 250 metres of the scheme. A total of 31 bat roosts were identified, belonging to 9 species of bat. The majority of these were small roosts belonging to common species of bat, including brown long-eared bat, common pipistrelle, noctule, serotine and soprano pipistrelle. However, notable finds included a dead lesser horseshoe bat within 1 roost (although this had likely been there for a long time), and a Myotis sp. tree roost containing 38 bats, which was a suspected maternity roost. Numerous important commuting corridors were identified, mainly to the north of the existing A303, with more limited number south of the existing road. A potential important crossing point was also identified south of Steart Wood,

approximately 220 metres west of Conegore Corner, recorded as utilised by common and rare species of bat, including barbastelle, greater horseshoe bat and lesser horseshoe bat. High levels of foraging activity was noted in the fields and woodland edges at the entrance of Hazlegrove School, with an array of common species recorded.

In order to reduce the impact of the scheme on bats a number of mitigation measures have been recommended. These include:

- reinspection and resurvey of building F001 at WS64408, which has been identified as having an inactive *Pipistrellus* sp. roost in, and would be demolished
- reduction of habitat clearance of habitats suitable for bats to the minimum areas possible
- limit the creation of gaps in hedgerows, keeping them to a minimum of 10 metres in width
- reinstatement of habitats removed for temporary works as soon as possible
- avoidance of night time working. Where this is not possible a 10 metre buffer zone would be required around hedgerows, woodland and roosts (active and inactive), in addition to the design of a wildlife friendly lighting scheme and installation of soil bunds and acoustic barriers to minimise disturbance
- installation of bat hop overs to reduce the risk of collision with vehicles

Enhancement measures have also been recommended to ensure that any habitats which may be lost as a result of the scheme are replaced, and habitat creation contributes towards a net gain in biodiversity where possible. Enhancements include: bat boxes, a bat house, and compensatory planting of hedgerows, woodland and grassland habitats.

Although sensitive bat receptors have been recorded across the survey area, it has been assessed that where all mitigation and enhancement measures detailed are implemented and monitored to ensure they establish successfully, the scheme is unlikely to have a significant impact on any of the bat species recorded.

1 Introduction

1.1 Overview of the scheme

Existing corridor

1.1.1 The A303 forms part of Highways England's Strategic Road Network (SRN) and a strategic link between the south west and the rest of the south, south-east and London. The route comprises multiple road standards, including dual carriageway, single carriageway and single carriageway sections with overtaking lanes. Speed limits also vary between 40 miles per hour and 70 miles per hour, depending on the character of the road and its surroundings.

Existing road

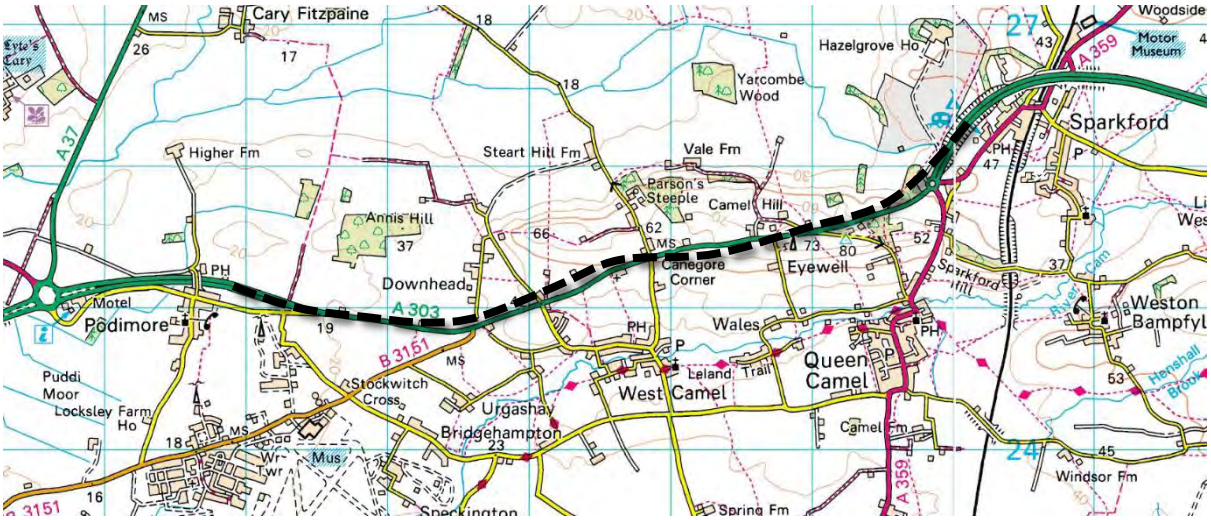
1.1.2 The section of the A303 that is being upgraded as part of this scheme commences at the eastern limits of the existing dual carriageway, the Podimore Bypass. Travelling east, the corridor reaches the junction with the B3151 before bearing north east and rising upwards through Canegore Corner to reach the crest of Camel Hill at Eyewell. This section of the corridor is characterised by a single lane road, with double white lines negating overtaking and subject to a 50 miles per hour speed limit. There are several priority junctions along the route giving access to the settlements of Queen Camel and West Camel to the south and Downhead to the north, as well as several farm accesses and parking laybys.

1.1.3 From the crest of Camel Hill, the corridor descends to meet the roundabout at the western limit of the dual carriageway Sparkford Bypass (Hazlegrove Roundabout). This section comprises 2 lanes in the westbound direction, 1 lane in the eastbound direction and is also subject to a 50 miles per hour speed limit. Hazlegrove Roundabout forms a junction between the A303 and the A359 which runs south through Queen Camel and north-east through Sparkford. The roundabout also provides access to a service station, and to a school at Hazlegrove House.

1.1.4 The section of the A303 that is to be upgraded is almost 3.5 miles, or approximately 5.6 kilometres long.

1.1.5 The extents of the scheme are illustrated in Figure 1.1 below. Figure 2.1 of Volume 6.2 shows the proposed red line boundary for the scheme.

Figure 1.1: Scheme extents



Source: Mott MacDonald Sweco Joint Venture

Scheme proposals

1.1.6 The proposed scheme is to provide a continuous dual-carriageway linking the Podimore Bypass and the Sparkford Bypass. The scheme would involve the removal of at-grade junctions and direct accesses. The Hazlegrove Junction would be constructed to grade-separated standards and Downhead Junction and Camel Cross Junction would be constructed to compact grade-separated standards, as illustrated on Figure 2.3 General Arrangement Plans, contained in Volume 6.2.

1.1.7 A detailed description of the scheme is provided within Chapter 2 The Scheme of Volume 6.1.

1.2 Scope of report

1.2.1 This report outlines the details of bat surveys undertaken between 2016 and 2018 as part of the assessment of the scheme. The report includes the survey methods and results, an assessment of potential impact, and provides recommendations for mitigation and enhancements to reduce the impacts and help maintain favourable conservation status of the local bat population.

1.2.2 The objectives of this report are:

- to inform the Environmental Impact Assessment (EIA)
- to present the results for the potential for trees and buildings within the study area to be supporting roosting bats
- to present information on important landscape and habitat features used by commuting and foraging bats
- to assess the potential impacts of the scheme on bats

- to provide recommendations for further mitigation, licencing, habitat creation and enhancement

1.3 Legislation

1.3.1 All native species of bat are afforded full protection under the *Conservation of Habitats and Species Regulations 2017*, the *Countryside and Rights of Way (CRoW) Act 2000*, the *Natural Environment and Rural Communities (NERC) Act* and the *Wildlife and Countryside Act (WCA) 1981* (as amended).

1.3.2 Under Regulation 41 of the *Conservation of Habitats and Species Regulations 2017* it is illegal to:

- deliberately capture, injure or kill any wild animal of a European Protected Species (EPS) (all UK bat species)
- deliberately disturb wild animals of an EPS (in particular, disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, to hibernate or migrate or to affect significantly the local distribution or abundance of the species to which they belong)
- damage or destroy a breeding site or resting place of an EPS

1.3.3 Under Schedule 5 of *WCA 1981* it is illegal to:

- deliberately capture, injure or kill a bat
- intentionally or recklessly disturb a bat in its roost
- deliberately disturb a group of bats
- damage or destroy a bat roosting place (even if they are not occupying the roost at the time)
- possess or advertise / exchange a bat (dead or alive) or any part of a bat
- intentionally recklessly obstruct assess to a bat roost

1.3.4 The *Conservation of Habitats and Species Regulations 2017* strengthens protection given under the WCA 1981, making it an offence to disturb bats, particularly where this may impair their ability to, survive, breed, reproduce, hibernate, nurture or rear their young, or significantly affect the local distribution or abundance of a species.

1.3.5 The *CRoW 2000 Act* further strengthens the *WCA 1981*, requiring the conservation of biodiversity in accordance with the Convention on Biological Diversity 1992.

1.3.6 The NERC Act 2006 places obligation on public authorities to take the conservation of species and habitats of principal importance, for the purpose of conserving biodiversity into consideration. Section 41 of the Act contains a list

of habitats and species of principle importance for conserving biodiversity in England.

1.3.7 The following species of bat gain extra protection, being listed as an Annex II species of the *EU Habitats Directive 1992*.

- Barbastelle *Barbastellus barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Greater horseshoe bat *Rhinolophus ferrumequinum*
- Lesser horseshoe bat *Rhinolophus hipposideros*

1.3.8 This means that these species have been assessed as meeting the criteria for site selection of Special Areas of Conservation (SACs) to specifically conserve these species. Site selection is based on evidence of a large and robust population of 1 or more of these bat species.

1.4 Status of bats at the national level

1.4.1 There are 18 species of bat within the UK, 17 of which are known to be breeding. Bat populations are known to have decreased significantly over the last century, with this largely attributed to threats associated with development. These threats include direct impacts on roosts from building and development work requiring tree removal, and the demolition of buildings and other structures, in addition to severance of important commuting corridors by roads, other linear infrastructure and vegetation removal. Habitat loss has also resulted in the loss and degradation of important foraging grounds for bat populations. Increased disturbance from light and noise associated with development both through construction and operation, and the installation of wind turbines are also thought to have contributed to the decline in the numbers of bats.

1.4.2 The following species were previously listed as *UK Biodiversity Action Plan* (UK BAP) species and are now listed as species of 'principal importance' for the conservation of biodiversity in England, under Section 41 of the NERC Act':

- Barbastelle
- Bechstein's bat
- Brown long-eared bat *Plecotus auritus*
- Greater horseshoe bat
- Lesser horseshoe bat
- Noctule *Nyctalus noctule*
- Soprano pipistrelle *Pipistrellus pygmaeus*

1.4.3 Following the production of *Biodiversity 2020*[1], actions were identified to help the recovery of Schedule 41 listed species. Specific species actions, their attributed action priority and the priority group which Natural England has classified each species into, are detailed in appendix A.

1.5 Status of bats at county level

1.5.1 Sixteen bat species have historically been recorded in Somerset, and of these 15 species are known to roost within the County.

1.5.2 Although the UK BAP has been superseded, BAPs are still widely used at county level to support *Biodiversity 2020*. Bats are listed on the Somerset BAP under the *Somerset Bats Group Action Plan*[2]. Table 1.1 lists species of bat found within Somerset, the national conservation status and their status within the county, as detailed in the *Somerset Bats Species Action Plan* (SAP).

Table 1.1: The status of bats in Somerset

Species	National conservation status	Somerset status
Barbastelle	Rare	Very rare
Bechstein's bat	Very rare	Rare
Brandt's bat *Myotis brandtii*	Common in west and north, rare elsewhere	Rare
Brown long-eared bat	Common	Common
Common pipistrelle *Pipistrellus pipistrellus*	Common	Common
Daubenton's bat *Myotis daubentonii*	Common	Widespread
Greater horseshoe	Very rare and endangered	Local
Grey long-eared bat *Plecotus austriacus*	Rare	Very rare
Leisler's bat *Nyctalus leisleri*	Scarce	Very Rare
Lesser horseshoe	Rare and endangered	Local
Nathusius' pipistrelle *Pipistrellus nathusii*	Rare	Very rare
Natterer's bat *Myotis nattereri*	Fairly common	Widespread
Noctule	Uncommon	Local
Serotine *Eptesicus serotinus*	Widespread	Local

[1] Defra (2011) *Biodiversity 2020*: A strategy for England's wildlife and ecosystem services [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf (last accessed March 2018).
[2] Somerset Wildlife Trust (n.d.g). *Somerset Bat Species Action Plan* [online] available at: http://www.somersetwildlife.org/hres/somerset_bat_sap.pdf (last accessed December 2017).

Species	National conservation status	Somerset status
Soprano pipistrelle	Common	Common
Whiskered bat *Myotis mystacinus*	Locally distributed	Widespread

1.5.3 The Somerset bat SAP also identifies the following habitat types, each with their own action plans, of being of importance to bats in Somerset:

- Water and wetlands (including rivers and streams)
- Hedgerow and hedgerow trees
- Wood pasture, parkland and veteran trees
- Woodland
- Calcareous and neutral grassland

1.5.4 Populations of all bat species have been subject to decline in the past as a result of a number of impacts and threats, mainly as a result of development. Within the county the following impacts and threats have been identified as being of particular relevance to how development effects bat populations:

- loss of feeding habitat:
  - reduction of available woodland, pasture, hedgerow and ponds as a result of land take for development
  - hydrological changes resulting in loss of wetlands and ponds, with resultant loss of diverse invertebrate populations these support
- loss or alteration of roost site:
  - loss from alterations to and demolition of buildings and barns
  - felling of mature trees
  - tree surgery and management
- loss or fragmentation of flight lines:
  - severance of linear features such as hedgerows and treelines reducing connectivity between roosting sites and foraging grounds.
- installation of street and other artificial lighting:
  - disturbance and potential abandonment of roosts
  - prevention of safe exit from roosts
  - alteration of feeding behaviour, with some species of bat attracted to artificial light and other avoiding artificially lit areas, potentially severing commuting routes
  - draw of prey towards artificial light and away from foraging grounds reducing prey abundance in feeding areas.
- disturbance from increased noise:
  - disturbance to bat behaviour close to development site, particularly during the construction phase

- abandonment of trees roosts, with these roosts particularly sensitive to noise disturbance

1.5.5 road mortality. Records dated from the last 10 years were considered from both desk studies. Any records older than 10 years (prior to 2007) were not used to inform the assessment, to avoid outdated information skewing the assessment of how the scheme may have impact on bats.

1.5.6 Statutory and non-statutory designated sites within 2 kilometres of the scheme, extending to 30 kilometres for SACs for bats using the Multi-Agency Geographic Information for the Countryside (MAGIC)[3] interactive mapping tool, were considered.

1.6 Field surveys

1.6.1 Methodologies detailed within this section were designed with the intention for data collected throughout all 2017 and 2018 bat surveys, to produce robust baseline data on all UK bat species within the survey area of the scheme.

1.6.2 The scope of the bat surveys for the scheme and the methodologies proposed to undertake these were discussed with Natural England on 2 May 2017. Where amendments to the standard bat survey methodology were requested by Natural England the approach to survey was altered in line with these. This is detailed in the following sections. The memo originally issued to Natural England for comment can be found in appendix C, with the response from Natural England in appendix D.

1.6.3 The scheme lies within the known distribution of bat species listed under Appendix II of the *Habitats Directive*, and so have the potential to be using features and habitats within the study area. Where these species were recorded, the requirement for additional survey was assessed to determine whether this was required to supplement baseline data.

Preliminary appraisal for potential roosting features

1.6.4 In order to determine where potential roosting features for bats may be present within the study area, teams of surveyors walked all accessible parcels of land within a 250 metre buffer of the scheme. Survey teams were formed of pairs of surveyors, with at least 1 of the pair being experienced in preliminary appraisal of buildings and trees for their potential to support roosting bats, and possessing a detailed knowledge of bats and their roosting preferences.

1.6.5 The land within the study area was walked systematically, with all buildings and trees undergoing an assessment as to their potential to support roosting bats.

[3] Defra (2018) Multi-Agency Geographic Information for the Countryside [online] available at: http://magic.defra.gov.uk/ (last accessed April 2018)

Where other features with the potential to be utilised by bats for foraging and commuting were noted, such as hedgerows and treelines, these were also noted to inform the design of transect surveys.

1.6.6 Surveyors observed buildings, trees and structures from ground level, using binoculars and a torch where appropriate to assess the depth of potential roosting features. Further details on how building and structure surveys, and tree surveys were undertaken are provided in the sections below.

External assessment of buildings and structures from ground level

1.6.7 Buildings (including barns, sheds and outbuildings) and structures such as archways identified during the preliminary appraisal for potential roosting bats, were assessed in line with the *Bat Conservation Trust (BCT) Good Practice Guidelines*[4].

1.6.8 Each building or structure was methodically surveyed in order to identify any potential ingress or egress points, noting the type of feature (for example, missing roof tile), the size of any ingress or egress point, height and orientation of each feature and any sign of bat use such as scratch marks or staining. Each feature was also classified for its potential to be used by roosting bats, which fed into the overall assessment of each building or structure for its potential to support roosting bats. These classifications were assigned according to the BCT guidance shown in Table 2.1.

Table 2.1: Defining potential to support roosting bats

Potential to support roosting bats	Description
Confirmed	A feature / structure within which bats are seen to be present (either live bats, or bat carcasses) or heard 'chattering' inside will be classified as a confirmed roost. In addition, any feature/structure found to contain droppings during inspections will in the first instance be considered as a confirmed roost. N.B. In some cases, it may be appropriate to revise this assessment following further survey (for example for buildings containing low numbers of old droppings and showing no evidence of use during emergence surveys).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough

[4] Collins (2016) *Bat Survey for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.

Potential to support roosting bats	Description
	space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Negligible	Negligible habitat features on site likely to be used by roosting bats.

1.6.9 Surveyors produced a description of each building, and described any relevant features with reference to the glossary of architectural terms in the *Bat Workers Manual*[5].

1.6.10 All information recorded during the external building and structures assessments were recorded on a standardised form, with digital photographs taken of each feature, in addition to the whole building or structure, where permission was granted by the occupier of the building. These were then cross-referenced with each potential roosting feature on the standardised form. GPS co-ordinates were also taken for each building or structure and noted within the standardised form.

1.6.11 Where possible surveyors also assessed the potential for buildings to be used by hibernating bats. However, it was noted that at this stage these assessments are only preliminary, in absence of internal inspection data allowing for the identification of suitable areas such as cellars and basements.

Assessment of trees from ground level

1.6.12 All trees within a 250 metre buffer of the scheme centreline were assessed for their potential to support roosting bats by a survey team consisting of at least 1 ecologist with suitable knowledge of the requirements of roosting bats and experience in conducting these surveys.

1.6.13 Trees were surveyed from ground level, using binoculars and a torch where appropriate, to obtain an initial judgement of the depth of any potential roosting features.

1.6.14 Each surveyed tree was given a unique reference code, marked on a map, had its GPS point taken, and marked with a tree tag. This information was then cross-referenced to the standardised form, with information provided detailing the number of potential roosting features, the type of roosting features (for example, missing limb, trunk or branch cavity, loose bark or thick ivy cover), the height and aspect of these features. Where evidence of bat use could be seen

[5] Mitchell-Jones, A.J, & McLeish, A.P. Ed., (2004), 3rd Edition *Bat Workers' Manual* [online] available at: http://jncc.defra.gov.uk/page-2861 (last accessed January 2018).

from ground level, such as staining or droppings, this was also noted in the standard forms.

1.6.15 Trees were classified according to their potential to support roosting bats, as negligible, low, moderate or high, (in accordance with the criteria in Table 2.1), taking their position in the landscape and connections to the wider environment into account.

1.6.16 Where possible surveyors also noted which type of roost they assessed the tree to have the potential to support, in addition to approximate size. However, it was noted that this should only be used as indicative due to the limited data that would be informing this assessment.

Internal building surveys

1.6.17 No internal structure surveys were required as part of this project, due to the absence of any bridges, caves or tunnels in the study area. Structures identified comprised mainly those associated with residential buildings, such as archways.

1.6.18 Where buildings had been identified as having moderate or high potential to support roosting bats in the external building surveys, and access to these buildings was granted, internal building inspections were undertaken. This allowed for further assessment of the buildings potential to support roosting bats. All internal building inspections were undertaken by a pair of surveyors, at least 1 of which held a current Natural England Class 1 bat licence as a minimum. Buildings with low potential to support roosting bat within the construction footprint of the scheme, moderate potential to support roosting bats within 40 metres of the scheme and those of high potential to support roosting bats within 120 metres of the scheme, were assessed.

1.6.19 Where possible and safe to do so, surveyors accessed all areas within the building, including attic, loft species, and cellars. High-powered torches with red filters, binoculars and endoscopes were used to assess all accessible areas, with any access constraints recorded in survey notes and fed into the assessment of the building.

1.6.20 Digital photographs of evidence of bat use (such as droppings and urine staining), were taken where it could be ensured that this would not disturb any roosting bats.

1.6.21 Where droppings were found, a small sample considered to be representative of each species within the roost were collected. These were then collected in a plastic bag or sample tube, and marked with the following details:

- Date of sample collection (day / month / year)

- Survey location reference
- GPS co-ordinates
- Suspected species
- Surveyor name

1.6.22 These samples were then stored in a cool, dry place until they could be sent off for DNA analysis by the University of Warwick.

1.6.23 Using the results from the internal building inspections, buildings were then reclassified for their potential to support roosting bats. Additional information on the potential type of roost which the building could support, in addition to its rough size, was also noted when the information obtained from this survey could be used to do this.

1.6.24 Each building was also further assessed for its potential to support hibernating bats.

Potential roost feature inspection surveys

1.6.25 Tree climbing surveys were undertaken in 2017 to undertake potential roost feature (PRF) surveys. Surveys were undertaken by teams of 2 suitably qualified tree climbers (CS38), of which at least 1 of which held a currently Natural England Class 2 bat survey licence.

1.6.26 Surveys were undertaken on moderate and high potential trees (with no trees confirmed as bat roosts during the ground assessment stage). This allowed for the use of an endoscope to inspect potential roosting features and update the classification of each trees potential to support roosting bats. The potential for a tree to support roosting bats was either:

- upgraded, when aerial inspection allowed for better assessment of features and discovered they were more suitable than they appeared at ground level
- downgraded where survey from aerial vantage points could rule out or reduce the potential for potential roosting features to be used by bats
- confirmed the classification attributed to each potential roosting feature during ground level assessments
- confirmed the use of roosting bats, where evidence of current as a roost was identified, such as the presence of bats, fresh droppings and fresh staining

Emergence and re-entry surveys

1.6.27 Buildings and trees within the construction footprint assessed as having low, moderate, and high roosting potential, were included in the emergence and re-entry surveys. Buildings and trees with moderate suitability within 40 metres of

the construction footprint and high suitability within 120 metres of the construction footprint, were included. These distances incorporated a 20 metre buffer to allow for changes within the scheme design, which was still being finalised through the period that the emergence and re-entry surveys were being undertaken. Buildings and trees identified as having negligible potential required no further surveys.

1.6.28 Survey effort was determined by roosting potential, outlined within the *BCT Good Practice Guidelines*[4] as shown in Table 2.2 below.

Table 2.2: Minimum number of emergence and re-entry survey visits for high, moderate and low potential buildings and moderate potential trees.

Roosting potential	Survey effort
High	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could either be dusk or dawn. May to September.
Moderate	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey, May to September.
Low	One survey visit. One dusk emergence or dawn re-entry survey (structures). May to August. No further surveys required (trees).

Source: *Bat Surveys – Good Practice Guidelines,* 3rd Edition[4]

1.6.29 Surveyor numbers were sufficient for each survey, ensuring all potential roost features were visible by at least 1 surveyor. Potential access and egress points were pointed out to surveyors prior to the survey start. Visual contact was maintained throughout the survey and surveyors remained at their assigned feature location to provide sufficient coverage.

1.6.30 Evening emergence surveys began 30 minutes before sunset, ending 2 hours after sunset. Dawn re-entry surveys started 2 hours before sunrise and ended 15 minutes after sunrise, continuing for 30 minutes if high levels were recorded at the 15-minute point.

1.6.31 Surveys were undertaken in line with the *BCT Good Practice Guidelines*[4], with surveys undertaken between May and October (weather permitting). Features of high potential were surveyed 3 times (twice between May and August where possible). Moderate potential features were surveyed twice (with at least 1 survey between May and August where possible) and low features were surveyed once during the survey season

1.6.32 Survey conditions were recorded within the proforma including:

- Sunset and sunrise times
- Air temperature
- Cloud cover
- Wind speed

- Changes in weather conditions for survey period

1.6.33 All surveys aimed to be carried out in close to optimal conditions as defined in the *BCT Good Practice Guidelines*[4], including a sunset temperature 10°C or above, no rain or strong wind. Where conditions were not optimal, the lead ecologist would make a judgement on the continuation of the survey if conditions deteriorated for more than half an hour.

Activity surveys (walked transects)

1.6.34 Transects were designed to identify species composition and general distribution of bats along the length of the scheme, focusing on linear features with potential importance for commuting bats, and habitats with the potential use as foraging grounds.

1.6.35 When assessing potential foraging and commuting habitats, guidelines below within the *BCT Good Practice Guidelines*[4] detailed in Table 2.3, were referred to.

Table 2.3: Defining suitability of bat foraging and commuting habitats

Suitability of commuting and foraging habitat	Description
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, in other words not very well connected to the surrounding landscape by another habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.

Source: *Bat Surveys – Good Practice Guidelines*, 3rd Edition[4]

1.6.36 The transect surveys aimed to indicate species and numbers of bats utilising habitat within and near the scheme, and existing features within the landscape considered important for bat foraging, navigation, and orientation that may be adversely affected by the scheme.

1.6.37 Following a meeting with Natural England (02 May 2017), 2 of the 4 original transects were split to maintain adequate coverage across the scheme,

resulting in a final transect number of 6. Locations were based on the linear route of the scheme and habitats affected by the proposal; focusing on moderate and high potential habitats comprising hedgerows, and woodland.

1.6.38 Each transect was assigned 10 stopping points, associated with areas of habitat which had the potential to be of importance to commuting or foraging bats, for example along established hedgerows, hedgerow intersections or woodland edges. Particular focus was given to high quality habitats with the potential to be directly impacted by the scheme, or connected to these via suitable habitats for bats.

1.6.39 Increasing the number of transect surveys from 4 to 6 meant that the number of static detectors deployed also increased to provide better coverage across the scheme. Further details are provided on the use of static detectors in the assessment in section 2.10.

1.6.40 Each transect was surveyed at dusk, once per month for 7 months from April to October 2017 inclusive. This was based on the 'moderate' survey effort outlined in the *BCT Good Practice Guidelines*[4], and considered adequate for assessing a mixture of habitats throughout the scheme due to supplementation of information from crossing point surveys and landscape scale transects.

1.6.41 Dusk transect surveys began at sunset and lasted 3 hours to account for late emerging bat species, notably horseshoe species. Dawn transects started 3 hours before sunrise, and finished at sunrise. Surveyors would walk each transect at a steady pace. Transect directions alternated each time the transect was walked; from east to west and then vice versa.

1.6.42 Between June and early July, each transect was subject to a single follow-up dawn survey which was undertaken within the same 24-hour period as the previous dusk survey.

1.6.43 All surveys were aimed to be conducted during suitable weather conditions as defined in *BCT Good Practice Guidelines*[4], with surveys conducted close to optimal conditions (sunset temperature 10°C or above, no rain or strong wind). The lead ecologist would make a judgement on the continuation of the survey if conditions deteriorated for more than half an hour.

Static bat recorders

1.6.44 Three static detectors were installed for each of the 6 transects (18 static sites) (see Figure E.1 in appendix E), in accordance with *BCT Good Practice Guideline specifications*[4]. Each detector was deployed for 1 week per month between April and October 2017, to ensure it recorded for 5 consecutive nights per month. The location of each static detector was determined by suitably experienced ecologists to compare activity at each deployment site across the

survey season. Static detectors were deployed within a range of suitable habitats considered to be directly or indirectly affected by the scheme. This included hedgerows, riparian corridors, woodland, parkland, orchards, and scrub.

1.6.45 During April and May, a total of 12 detectors were used, as this was prior to the split of the 2 online transects into 4. Once these transects had been split, additional static recorders were deployed along the routes, ensuring 3 statics on each route. The locations of the 6 original online static recorders and all 6 of the statics associated with the offline[6] route from April and May, remained though the June to October surveys to ensure consistency of activity recordings in these areas, with the additional 6 detectors deployed at new suitable locations.

1.6.46 Detectors were secured within a waterproof container, and locked with an individual key; the number of which would be recorded within the proforma at deployment. The detector microphones were located so that ambient or extraneous noise recorded was minimised. Positions were also adjusted where solid objects would impede the passage of sound to the microphone.

1.6.47 To ensure consistency across hardware, the same type of automated detectors were used across the sites (Titley Anabat Express). Prior to deployment, fully charged batteries and empty SD cards were fitted. The SD cards were individually numbered and recorded within the proforma.

1.6.48 Detectors were used on a rotational basis across the 18 sites each month; deployed at 1 location for a week and then re-deployed at a new location for a further week. Batteries and SD cards were replaced prior to each move. SD card numbers were recorded again on the survey proforma to track what static data was on each one. Where possible, a 4-week period between deployment at each individual static site was observed, aiming to ensure data was spread evenly throughout the survey season.

1.6.49 The automated detector sampling strategy was stratified. Random or systematic sampling was considered impractical for the scheme due to landowner constraints and the risk of damage to the detectors if placed in the middle of arable or pastoral fields that make up the majority of sites. It was also considered to be less useful for informing the location of crossing point surveys described below (section 2.11).

[6] Transect routes were designed during the route optioneering process, where a number of possible routes were under consideration. To ensure full data sets for whichever option was taken forward, online and offline routes were designed, with Offline 1 and Offline 4 transects also covering all options, therefore the same option as the online option

Crossing point surveys

1.6.50 Crossing point surveys aimed to inform the impact assessment in relation to potential fragmentation of bat foraging and commuting habitat, and direct mortality. The resultant data can inform the nature and location of any required bat crossing structures as well as providing baseline data for future monitoring of effectiveness of any mitigation implemented as required.

1.6.51 The methodology was in accordance with Berthinussen and Altringham (2015)[7] that requires at least 6 visits per crossing point location. This provides a robust baseline from which to monitor the effectiveness of crossing structures.

1.6.52 Twelve crossing point survey locations were identified (see Figure E.2 in appendix E), based on assessment of mature hedgerows with good connectivity, woodland blocks, and riparian habitats likely to be important for commuting and foraging bats impacted by the scheme. Crossing point survey locations were determined by using the first 3 months of activity transect survey data and automated survey data, to focus survey effort on features most likely used by bats. Of these 12 survey locations, 11 were used, with health and safety constraints associated with the twelfth location preventing survey.

1.6.53 Surveys were conducted from July 2017 until September 2017 rather than June to August as suggested within Berthinussen and Altringham (2015)[7]. This was so that surveys would correspond with the preferred route announcement from July to minimise wasted survey effort. The timings for the surveys were considered appropriate based on the southerly location of the scheme as well as the potential for hibernation, transition, and swarming sites within the surrounding landscape.

1.6.54 Bat species, number of passes, flight height, direction, distance from feature, time of crossing, additional behaviour, and weather conditions were recorded for each survey at each crossing point. Dusk surveys began at sunset and lasted for 90 minutes to account for late emerging species. Dawn surveys began 90 minutes before sunrise, finishing at sunrise. Repeated surveys of each crossing point location were at least 1 week apart.

1.6.55 Results were assessed after the second survey to determine whether the crossing point required the full 6 surveys. Locations were taken forward for the full number of surveys where over 10 observed bat passes or 100 bat calls were recorded on 1 survey, or where rare species of bat such as barbastelle or lesser horseshoe were observed crossing the features.

[7] Berthinussen A & Altringham J (2015) WC1060 *Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure*. Defra.

Hibernation surveys

1.6.56 Buildings and structures identified during initial assessments as having moderate or high potential to act as bat hibernation sites, were surveyed by an ecologist with a Natural England licence to disturb hibernating bats.

1.6.57 Two visits are required per identified site; the first of which was conducted mid-January 2018 with the second visit undertaken in mid-February 2018. Where buildings and trees could not be accessed at both of these timeframes, 2 surveys were programmed in between mid January and the end of February 2018.

1.6.58 During the survey, sites were searched systematically from the entrance, carefully inspecting for droppings or oil staining around cracks and crevices, including rock piles, that may yield evidence of use by bats. Detailed records were made of the location of any bats seen or signs identified and marked on a plan of the site.

1.6.59 A detailed description of the potential hibernation site, including construction details and perching points, was recorded on sites where access had not been previously obtained and if this was not made within the initial assessment.

1.6.60 Static detectors were placed within potential hibernation sites for a period of 2 weeks between January and February 2018 to monitor the species present, where permitted by land owners.

Landscape scale transects

1.6.61 Ten landscape scale transects are required to provide baseline data to ensure there is sufficient data to detect changes in overall bat activity following construction of the road. These are to be undertaken in line with methods described in Berthinussen and Altringham (2015)[8] during summer 2018.

1.6.62 Surveys will consist of walked transects 1kilometre either side of and perpendicular to the scheme. Bat activity will be recorded using full spectrum bat detectors during stationary spot checks lasting 10 minutes at each 100 metre interval from the centreline of the scheme. Weather and habitat variables will also be recorded at each spot check.

1.6.63 Transects will be at least 500 metres apart where possible. Due to the length of the scheme, the 10 transects will be formed of 5 routes that will be walked twice, once away from the road and once towards the road. To ensure the surveys are repeatable for future monitoring, they are located along minor roads, bridleways and public footpaths. Surveys will be undertaken between

[8] Berthinussen A & Altringham J (2015) WC1060 *Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure*. Defra.

June and August 2018, beginning 30 minutes after sunset and lasted approximately 2 hours.

1.6.64 In order to monitor how bats are using these areas, it has been recommended that these transects are repeated 5 years post construction.

1.7 Grouping of bat species calls

1.7.1 Calls from bats belonging to the species *Myotis* are all known to produce very similar sounding calls, which are difficult to distinguish between both in the field, and when using bat call analysis software. For the purposes of this assessment the following species have been grouped to be reported as *Myotis sp.*

- Alcathoe bat
- Bechstein's bat
- Brandt's bat
- Daubenton's bat
- Natterer's bat
- Whiskered bat

1.7.2 This grouping is required to lower the probability of misidentification of species recorded during surveys. However, it is not expected to significantly impact the results of this assessment, with any *Myotis sp.* recordings of significance (such as a confirmed roost with the potential to be directly impacted by the scheme) to undergo more in depth analysis to determine which species this may belong to.

1.7.3 With calls which look and sound the same, that have peak frequencies only 10kHz apart, common pipistrelle and soprano pipistrelle calls often overlap as a result of call plasticity allowing bats to adapt their calls to the habitats they are in. Therefore, to avoid misidentification of species, the label *Pipistrellus sp.* has been used for any calls falling within the range of peak frequency where call overlap is known to occur between 49kHz and 51kHz.

1.7.4 This is also the case for common pipistrelle and Nathusius' pipistrelle, with the lower end of the common pipistrelle call range overlapping with the higher end of the Nathuisus' pipistrelle range. As all 3 species of pipistrelle have been recorded within the survey area, *Pipistrellus sp.,* has been used as a species identifier where calls have been recorded in the overlap ranges, but definitive calls from all 3 species has not been recorded during a specific survey or at that location. The purpose of which is to ensure that none of these 3 species are underreported within this assessment.

1.8 Constraints

1.8.1 Based on the time constraints associated with the Development Consent Order (DCO) Application in July 2018, it was not possible to undertake 2 seasons of

surveys prior to the application. However, the methodology above is considered to provide a robust approach for assessing the impacts of the scheme on bats as well as providing a baseline for evaluating mitigation. The recommended methods are in line with both the *BCT Best Practice Guidelines*[9] and Berthinussen and Altringham[10].

1.8.2 Further survey specific constraints have been detailed within section 3 under their corresponding survey type.

[9] Collins (2016) *Bat Survey for Professional Ecologists: Good Practice Guidelines* (3rd edn). The Bat Conservation Trust, London.
[10] Berthinussen A & Altringham J (2015) WC1060 *Development of a Cost-Effective Method for Monitoring the Effectiveness of Mitigation for Bats Crossing Linear Transport Infrastructure*. Defra.

2 Results

2.1 Desk study

2.1.1 There are 3 European SACs designated for bats located within 30 kilometres of the scheme. One Site of Special Scientific Interest (SSSI), Sparkford Wood, a semi-natural woodland comprising pedunculate oak *Quercus robur* and common ash *Fraxinus excelsior,* contains habitats with the potential to support numerous bat species, is located within 2 kilometres of the scheme, with a further 5 noted as being within 200 metres of the affected road network[11] where impacts on air quality from the scheme may need to be considered. Sixteen local wildlife sites (LWS) were also recorded within 2 kilometres of the scheme, the majority of which will support suitable bat habitat but are not designated for bats. Details of the statutory designated sites are outlined below.

European designated sites

Bracket's Coppice SAC

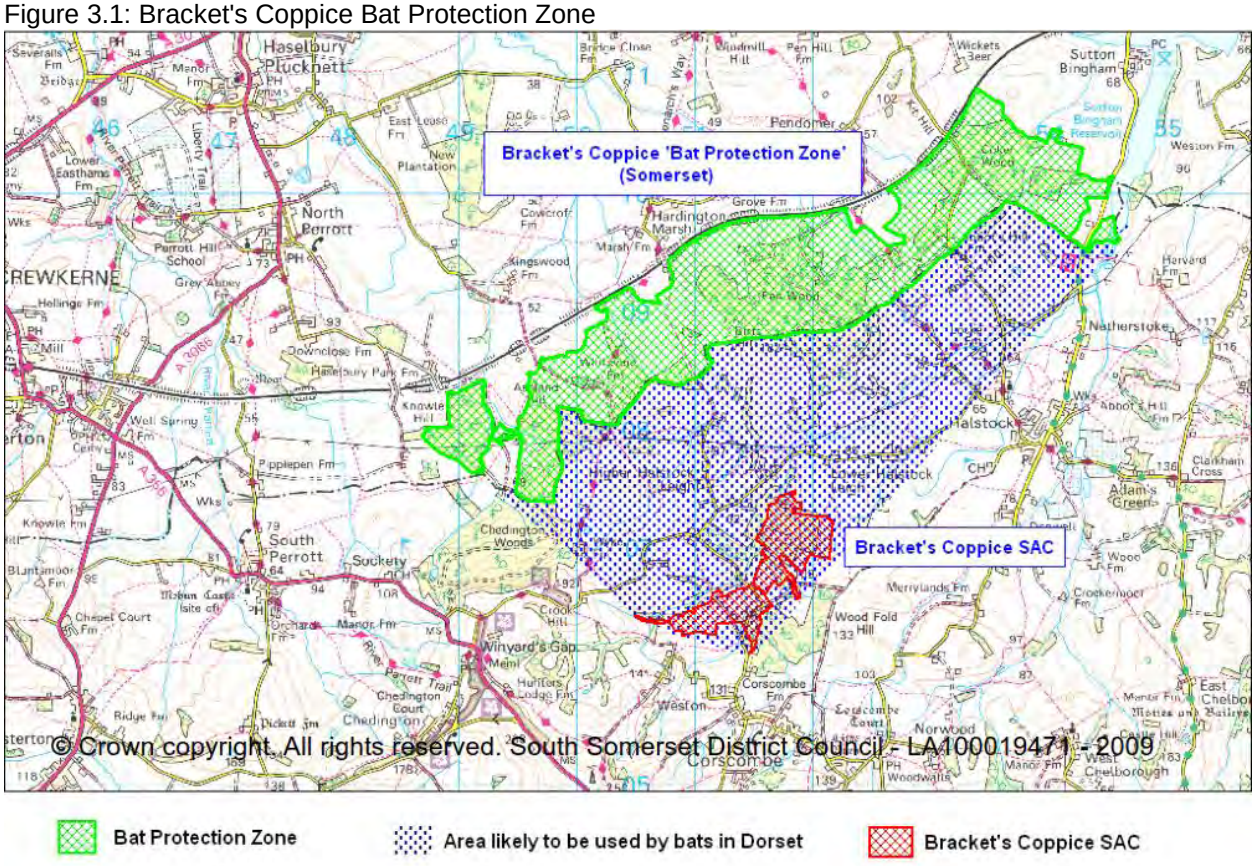
2.1.2 Bracket's Coppice SAC (UK0030095) is 28.62 hectares in size, approximately 17 kilometres south-west of the scheme. Annex I habitats within this SAC, such as Molinia meadows on calcareous, peaty or clayey-silt laden soils, are a qualifying feature for this site but not its primary reason for selection. The Annex II species supported by Bracket's Coppice act as the primary reason for its selection as a SAC, with these comprising Bechstein's bat.

2.1.3 In order to protect the integrity of the site, and ensure that the stability of populations of the Annex II species this site supports, and that are the qualifying reason for the selection of Bracket's Coppice as a European designated, a Bat Protection Zone has been set up around the SAC. This is detailed within the Screening Report for Bracket's Coppice SAC[12], which proposes that development within this zone has the potential for significant effects on Bechstein's bats within the district, as shown in Figure 3.1. This has been considered in this assessment, in addition to BCT guidance on core sustenance zone (CSZ). These zones include for an area which is required by a roost to sustain the population of bats within it, ensuring sufficient foraging resources and connectivity from the roost into the wider environment are maintained to support these bats. Any impacts within a CSZ should be assessed as having the potential to significantly impact bats. In the case of Bechstein's bat, the CSZ

[11] In line with the air quality assessment (Chapter 5 Air Quality of the Environmental Statement, Volume 6.1), based on the *Design Manual for Roads and Bridges* (DMRB).
[12] Somerset County Council (2008) *Appropriate Assessment of South Somerset District Council's Core Strategy: Issues and Options.* Screening Report for Bracket's Coppice SAC [online] available at: https://www.southsomerset.gov.uk/media/332126/aa_brackets_coppice_sac_screening_report_-_2_final_reduced.pdf (last accessed January 2018).

is 1 kilometre, however the BCT suggest that this should extend to 3 kilometres from the roost.

Figure 3.1: Bracket's Coppice Bat Protection Zone



2.1.4 This site is designated at a European level for Bechstein's bats and therefore is classified as being of very high conservation value at an international level.

Mells Valley SAC

2.1.5 Mells Valley SAC (UK0012658) is 53.75 hectares in size, located approximately 22 kilometres north-west of the scheme. Annex I habitats within Mells Valley are listed as a qualifying feature for the sites designation, but are not the primary reason for the selection of the site. These comprise semi-natural dry grassland and scrubland on calcareous soils in addition to caves, not accessible to the public. The primary reason for this sites selection as a SAC, is that it supports a maternity colony of greater horseshoe bat, an Annex II species.

2.1.6 At present there are no bat protection zones or avoidance strategies which have been set up for this site. In order to assess whether the scheme would have an impact on greater horseshoe bats within the maternity colony at Mells Valley, the CSZ guidance from the BCT has been used. This specifies that the CSZ for the greater horseshoe is 3 kilometres. However, although the scheme is a sufficient distance from the CSZ, this species is known to travel up to 50

kilometres between maternity and hibernation roosts, with the scheme falling within this distance from Mells Valley.

2.1.7 Greater horseshoe bats are known to use caves, disused mines, cellars and tunnels as hibernation sites. Where present, such potential hibernation sites will undergo hibernation surveys in line with methodology detailed in section 2.2 to determine whether any greater horseshoe hibernation sites have the potential to be impacted by construction of the scheme.

2.1.8 This site is designated at a European level for greater horseshoe bats and therefore is classified as being of very high conservation value at an international level.

North Somerset and Mendip bats SAC

2.1.9 North Somerset and Mendip Bats SAC (UK0030052) is 557.67 hectares in size, located approximately 29 kilometres north-west of the scheme. Annex I habitats within this SAC are a qualifying feature for the selection of this site, but not the primary reason for selection. These comprise semi-natural dry grassland on calcareous soils, Tilio-Acerion forests of slopes, screes and ravines and caves. The 2 Annex II bat species supported by this site, which has been designated for the maternity and hibernation colonies of greater horseshoe bat and a hibernation colony of lesser horseshoe bat.

2.1.10 There are no bat protection zones or avoidance strategies which have been set up for the North Somerset and Mendip Bats SAC. In order to assess whether the scheme would have an impact on greater horseshoe or lesser horseshoe bats, CSZ guidance from the BCT has been used. This specifies that the CSZ for greater horseshoe is 3 kilometres and for lesser horseshoe is 2 kilometres. Lesser horseshoe bats are known to use hibernation sites up to 10 kilometres away from their maternity colonies. However, greater horseshoe bats are known to travel up to 50 kilometres between hibernation and maternity roosts, with the scheme falling within this distance from the North Somerset and Mendip Bats SAC.

2.1.11 This site is designated at a European level for greater horseshoe and lesser horseshoe bats and therefore is classified as being of very high conservation value at an international level.

Nationally designated Sites

2.1.12 One SSSI has been identified within 2 kilometres of the scheme, with a further 5 noted as being within 200 metres of the affected road network associated with the scheme. Information regarding the distance, orientation, importance to bats and potential impacts of the scheme on bats which may use these sites are given in Table 3.1.

2.1.13 These sites are designated at a national level, and although none have been designated specifically for bats, they are classified as being of high conservation value at a national level.

Table 3.1: Location of nationally designated sites in relation to the scheme and their potential to be used by bats

Site Name	Distance and orientation from scheme	Potential use of site by bats
Sparkford Wood SSSI	1.2km north-east	Broadleaved semi-natural habitats provide potential roosting and foraging resources to a number of bat species. Ground flora has the potential to support invertebrate populations which could be utilised by foraging bats.
Whitesheet Hill SSSI	22.5km north-east	Extensive area of botanically rich chalk grassland, with nutrient rich grassland and scrub habitats. Noted to support a diverse array of invertebrate species which have the potential to be used by bats as a foraging resource.
Charnage Down Chalk Pit SSSI	24.5km north-east	This site is designated due to it being a famous geologically locality providing the most westerly exposures of the Chalk Rock of the late Turonian age in England. It is therefore likely that Charnage Down Chalk Pit SSSI is of limited value to bats.
Stockton Wood and Down SSSI	38km north-east	Habitats on site comprise of chalk grassland, scrub and woodland and is noted to support a diverse floral assemblage and array of invertebrates with the potential to be used as a foraging resource for bats. The part of Stockton Wood within the SSSI is ancient and long established, but also secondary in origin, comprising largely pedunculate oak-hazel-ash woodland. These habitats have the potential to support roosting and foraging bats.
Yarnbury Castle SSSI	46km north-east	Habitats on site comprise chalk grassland with rich floral assemblages, however these are confined to a bank and ditch area surrounded by agriculturally improved grassland. Invertebrate records are low in number. However, these habitats have the potential to be used on occasion by foraging bats.
Parsonage Down SSSI	47km north-east	One of the most outstanding chalk downland sites in Britain. Although grazed, the site contains botanically rich grassland with clumps of scrub comprising gorse *Ulex europaeus*, hawthorn *Crataegus monogyna*, bramble *Rubus fruticosus* and dogrose *Rosa canina*. The site is known to support an interesting array of invertebrates which have the potential to be used as a foraging resource by bats.

Regionally designated sites

2.1.14 Sixteen LWS's were recorded within in 2 kilometres of the scheme. Their distance and orientation from the scheme is detailed in Table 3.2, in addition to any notable features with the potential to support native bat species.

Table 3.2: Location of regionally designated sites in relation to the *scheme* and their potential to be used by bats

Site name	Code	Distance and orientation from the scheme	Presence of notable features with the potential to be used by bats.
Hazlegrove Park LWS	ST52/068	Adjacent proposed scheme footprint	Important assemblage of veteran broadleaved deciduous woodland that supports specialist invertebrate fauna. Potential to be used by roosting, foraging and commuting bats.
Camel Hill Transmitter LWS	ST52/051	Adjacent to the proposed scheme	Unimproved lowland, calcareous grassland and semi-natural broadleaved woodland. Potential to be used by roosting, foraging and commuting bats.
Gason Lane Field LWS	ST52/055	0.03km south	Semi-natural calcareous grassland, with a narrow strip of broadleaved, deciduous woodland. Potential to support roosting, foraging and commuting bats.
Downhead Manor Farm LWS	ST52/082	0.15km north	Ancient semi-natural & semi-natural broadleaved woodland. Small quarry with herb rich calcareous grassland and broadleaved woodland and secondary broadleaved woodland. (Previously designated as Lindsay House Quarry, Annis Hill and Bower Plantation). Brown long-eared bat have previously been recorded at this site. Potential to support roosting, foraging and commuting bats.
Ridge Copse LWS	ST52/028	0.03km south	Semi-natural broadleaved, deciduous woodland and quarry workings. Potential to support roosting, foraging and commuting bats.
Annis Hill LWS	ST52/039 now part of ST52/082	0.16km north	Lowland mixed deciduous woodland and ancient semi-natural broadleaved woodland. Twelve species considered to be indicators of ancient semi-natural woodland and hedgerows. Potential to support roosting, foraging and commuting bats.
Home Ground Pond LWS	ST52/076	2.3km north	Neglected and overgrown small farm pond in arable field. Potential for use on occasion by foraging bats.
Parsons Steeple LWS	ST52/043	0.22km north	Replanted ancient woodland site with semi-natural broadleaved woodland and mixed plantation stands.

Site name	Code	Distance and orientation from the scheme	Presence of notable features with the potential to be used by bats.
			Potential to be used by roosting, foraging and commuting bats.
Sparkford Hill Copse LWS	ST62/025	0.35km south-east	3.3ha of ancient & semi-natural broadleaved deciduous woodland. Potential to be used by roosting, foraging and commuting bats.
Vale Farm Field LWS	ST52/048	0.45km north	Remnants of calcareous grassland. Potential to be used by foraging bats.
Lindsay House Quarry LWS	ST52/049 now part of ST52/082	0.3km north	Small quarry with herb rich calcareous grassland, scrub and broadleaved woodland. Potential to be used by roosting and foraging bats
Cogberry Plantation LWS	ST52/038	0.35km north	Small quarry with herb rich calcareous grassland, scrub and broadleaved woodland. Potential to be used by roosting, foraging and commuting bats.
Bower Plantation LWS	ST52/049 now part of ST52/082	0.76km north	Semi-natural broadleaved woodland. Potential to be used by roosting, foraging and commuting bats.
Yarcombe Wood LWS	ST52/046	0.96km north	Ancient semi-natural broadleaved deciduous woodland and pond. Potential to be used by roosting, foraging and commuting bats.
River Cary LWS	ST52/021	1.3km north-west	Aquatic habitat with rare flora, bird and invertebrate interest including legally protected species. Potential for foraging and commuting bats.

2.1.15 These sites are designated at a regional level, and although none have been designated specifically for bats, they are classified as being of medium conservation value at a regional level.

Historic bat records

2.1.16 The results of the record search obtained around a 2 kilometre radius of the scheme from SERC provided previous historical bat records are detailed in Table 3.3 below, and their location is shown in relation to the scheme in appendix B.

Table 3.3: Historic bat records within 2km of the proposed scheme

Species	Distance and orientation from scheme	Accuracy of recording	Date of recording	Recording type
Pipistrelle bat sp.	2km south-east	Within 100m	15/06/2008	122 adult bats
Pipistrelle bat sp.	2km south-east	Within 100m	23/06/2008	106 adult bats
Pipistrelle bat sp.	2km south-east	Within 100m	18/06/2012	44 adult bats
Whiskered bat	2km south-east	Within 1km	03/08/2007	1 immature male bat

2.1.17 The desk study returned data at 2 locations within 2 kilometres of the scheme. All pipistrelle bat species records were recorded at the same grid reference, which would indicate that they may belong to the same roost. However, as the records provided were within a 100 metre accuracy this could not be confirmed. Nevertheless, with records provided at this level of accuracy, it can be assumed that these records are unlikely to be closer than 1.9 kilometres to the scheme. Due to the number of bats recorded this indicates roosts of high conservation value at a national level.

2.1.18 One record of 1 immature male whiskered bat was returned from the desk study with an accuracy of 1 kilometre. This means that the roost could be anywhere within a 1 kilometre radius of the grid reference provided by the study. Therefore, the closest this roost is likely to be to the scheme is 1 kilometre from it. As a result of the size of this roost and the species it belongs to, this record indicates a roost of medium importance at a local level.

2.2 Field surveys

2.2.1 Information obtained from the bat surveys that have been undertaken within the survey area of the scheme, is presented below within their associated survey type section. This includes information such as species identified during each survey type, and the potential for features to be used by bats for roosting, foraging and commuting.

Preliminary bat roost potential (BRP) assessment

Tree preliminary BRP assessment

2.2.2 During the preliminary appraisal for potential roosting features, there were a number of individual semi-mature and mature trees with features identified as having the potential to support roosting bats across the study area. These were identified within hedgerows, along field boundaries, in small clumps of trees, within woodland and informal parkland. Where safe to climb, these trees were subject to tree climbing inspections in line with the methodology detailed in section 2.2, and their potential to support roosting bats reclassified where appropriate.

2.2.3 A total of 33 trees were assessed as being of high potential to support roosting bats within 120 metres of the scheme. A further 12 trees within 40 metres of the scheme were assessed as being of moderate potential to support roosting bats. A total of 11 low potential trees were within the boundary of the scheme, however, in accordance with *BCT Good Practice Guidelines*[4] these were not subject to further survey. A single tree was also confirmed to support roosting bats, with bat droppings noted during the climb and inspect surveys. Droppings were noted by surveyors as displaying the characteristics of brown long-eared bat. However, this could not be confirmed through DNA analysis as the droppings were too old and degraded to produce a result.

2.2.4 Table 3.4 summarises the trees, their potential to support roosting bats following the climb and inspect surveys, and how many emergence re-entry surveys that should be undertaken on them to determine if they are used by roosting bats in line with BCT guidelines.

Table 3.4: Summary of tree bat roost potential following the preliminary BRP assessment

Tree potential	Land parcel reference no.	Feature number	Unique map code	No. of emergence re-entry surveys recommended
Confirmed	U00029-43	F018	T1	3
High	ST97976	F004	T2	3
	ST103525	F001	T3	
	ST128002	F001	T4	
		F003	T5	
		F004	T6	
		F007	T7	
		F009	T8	
	ST153085	F001	T9	
		F005	T10	
		F010	T11	
		F011	T12	
		F032	T13	
	U00010	F001	T14	
	U00024	F005	T15	
	U00029-43	F017	T16	
		F019	T17	
	WS16934	F002	T18	
		F003	T19	
	WS26353	F002	T20	
		F003	T21	
		F004	T22	
		F007	T23	
	WS31054	F001	T24	
	WS57193	F001	T25	

Tree potential	Land parcel reference no.	Feature number	Unique map code	No. of emergence re-entry surveys recommended
	WS75059	F008	T26	
	WS75681	F001	T27	
		F002	T28	
		F005	T29	
		F006	T30	
		F007	T31	
		F008	T32	
		F009	T33	
		F011	T34	
Moderate	ST106737	F002	T35	2
	ST128002	F002	T36	
		F013	T37	
	ST153085	F004	T38	
		F027	T39	
		F038	T40	
		F039	T41	
	WS1856	F003	T42	
	WS16934	F001	T43	
	WS46264	F001	T44	
	WS75059	F003	T45	
		F010	T46	

2.2.5 The location of these trees in relation to the scheme are shown in Figure E.3 in appendix E, with full details of the findings of the tree preliminary BRP assessment provided in Table F.1 and Table F.2 in appendix F.

2.2.6 Trees were also assessed for their potential to be used by hibernating bats, with results from this described below in the ‘Hibernation survey’ section.

Survey constraints

2.2.7 Not all trees identified for climb and inspect surveys were safe to climb. Where this was the case, surveyors attempted to get better views of and within features using an endoscope, or a GoPro camera on an extendable arm.

2.2.8 Where no additional information could be obtained due to health and safety risks associated with climbing that tree, the tree roost potential category assigned during the initial ground assessments were used. This then determined how many emergence and re-entry surveys the tree would be subject to.

Building preliminary BRP assessment

2.2.9 As part of the building preliminary BRP assessments, internal and external (where access could be granted and surveys undertaken safely) surveys were undertaken. As a result of this assessment 38 buildings were identified as being of either high potential and within 120 metres of the scheme or of moderate potential within 40 metres of the site. Of these 38 buildings, 4 could not be surveyed as land owners denied access to the buildings. Consequently, 34 buildings were subject to emergence re-entry survey between May and October 2017.

2.2.10 These buildings included residential buildings, barns and outbuildings, located mostly within, associated with or adjacent to farms, or in small groups of residential buildings, and buildings associated with small commercial holdings such a caravan park or bakery.

2.2.11 One structure, an archway, was identified as having the potential to support roosting bats and is included with the results below. No other structures such as bridges with the potential to support roosting bats, caves or mines, were identified during the building preliminary BRP assessments.

2.2.12 Table 3.5 summarises each building or structures potential to support roosting bats following the internal building inspections, and how many emergence re-entry surveys that should be undertaken on them to determine if they are used by roosting bats in line with BCT guidelines.

Table 3.5: Summary of building bat roost potential following the Preliminary BRP Assessment

Building potential	Land parcel reference no.	Feature number	Unique map code	No. of emergence re-entry surveys recommended
Confirmed	ST31926	F001	B1	3
	ST84283	F001	B2	
	ST103525	F007	B3	
	ST125075	F001	B4	
	ST126282	F001	B5	
	ST147000	F001	B6	
	WS56543	F001	B7	
	WS64408	F001	B8	
	WS75681	F001	B9	
		F005	B10	
High	ST84283	F002	B11	3
	ST139171	F003	B12	
	WS25151	F001	B13	
	WS42422	F001	B14	
	WS42423	F002	B15	

Building potential	Land parcel reference no.	Feature number	Unique map code	No. of emergence re-entry surveys recommended
		F001	B16	
	WS57193	F001	B17	
		F003	B18	
	WS75681	F002	B19	
		F003	B20	
		F004	B21	
Moderate	ST97213	F001	B22	2
	ST100525	F001	B23	
	ST103525	F002	B24	
		F006	B25	
	ST128002	F002	B26	
	ST139171	F001	B27	
		F002	B28	
	U00016	F001	B29	
	U00026	F001	B30	
	WS16326	F001	B31	
	WS24574	F001	B32	
	WS48619	F001	B33	
	WS57193	F002	B34	

2.2.13 A detailed table describing the buildings inspected alongside the BRP assessment and of the buildings can be found in appendix F (Table F.3 and Table F.4), with their locations in relation to the scheme given in Figure E.4 in appendix E.

2.2.14 Buildings were also assessed for their potential to be used by hibernating bats. With results from this described with the hibernation survey results.

Survey constraints

2.2.15 Where access was denied to the internal areas of buildings by land owners, but they still allowed for external inspections and surveys, the building roost potential category assigned during the initial external inspections were used to determine the number of emergence and re-entry surveys the building should be subject to.

2.2.16 Due to access limitations, some building internal inspections were undertaken after the emergence and re-entry surveys had begun. In these cases, buildings were surveyed in line with the BRP that was assigned to them after the external inspections, with this amended when additional information from internal inspections was obtained.

2.2.17 In the case of building F001 within land parcel ST97213, this building was assessed as being of moderate potential to support roosting bats, with 2 surveys undertaken. No evidence of bats using the building to roost were recorded on either emergence or re-entry survey. However, due to access restrictions the internal bat inspection was delayed and the survey period for emergence and re-entry survey for 2017 was closed when confirmed bat droppings were recorded. This building is not to be directly impacted by the scheme so this is not considered to be a significant constraint.

Bat emergence and re-entry surveys

2.2.18 A total of 9 species (when all *Myotis* species are grouped) of bat were recorded during the emergence and return species undertaken in 2017. All species recorded are afforded protection under the WCA 1981, *CRoW Act 2000* and the *Conservation of Habitats and Species Regulations 2017*. In addition to this species recorded during the emergence and re-entry surveys also include:

- two species listed on Annex II of the *Habitats Directive*
- five species listed on Section 41 of the NERC Act 2006

2.2.19 Confirmed bat roosts belonging to 4 of the 9 species recorded during the during the 2017 emergence and return surveys of buildings and trees. Further information regarding these is provided in the sections below. A further 2 species were identified from droppings and an additional species from a deceased specimen during internal building inspections and hibernation surveys.

Trees

2.2.20 A total of 46 trees that were identified during the preliminary BRP assessment (Table 3.4), as requiring focused emergence and re-entry surveys, to determine if they were in use by roosting bats. Where roosts were identified, these surveys also recorded how many individuals were observed to be using the roost on that night, and the species of bat within the roost. The dates and weather conditions of these surveys are provided in Table F.5 in appendix F.

2.2.21 The following species were recorded during the tree emergence and re-entry surveys undertaken during 2017 as using the scheme for foraging and commuting:

- Barbastelle
- Brown long-eared bat
- Common pipistrelle
- Leisler's bat
- Lesser horseshoe bat
- *Myotis sp*,

- Noctule
- Serotine
- Soprano pipistrelle

2.2.22 A summary bat activity associated with trees surveyed during emergence and re-entry surveys within the zone if influence is detailed in Table F.7 of appendix F. This describes the activity of each species recorded at each tree surveyed, in addition to the first recorded activity of this species after dusk.

2.2.23 Of the 9 species recorded during these surveys tree roosts were identified belonging to brown long-eared bat, common pipistrelle, *Myotis sp.* and soprano pipistrelle, with a total of 8 trees recorded as being used as roosts. The largest of these was a roost of 38 *Myotis sp.* bats within tree ID F008 on land parcel WS75059. Potential emergences from and returns to roosts were recorded where surveyors saw bats exhibiting roost entry or exit behaviours within close proximity to potential roosting features, but did not see the bat physically enter or exit the roost. These were recorded for brown long-eared bat, common pipistrelle, noctule, serotine and soprano pipistrelle.

2.2.24 Although recorded as a confirmed roost though bat droppings identified during the climb and inspect survey, no emergences or re-entries of bats were recorded during any survey of the tree roost in tree ID F018 on land parcel U00029-43.

2.2.25 A summary of all confirmed and potential tree roosts identified during the 2017 emergence and re-entry surveys is detailed in Table 3.6. Where roosts have been confirmed, and then a potential emergence or re-entry has been recorded this has also been noted. Further detail on the findings of these surveys, including species recorded during each survey within their known emergence or re-entry times are provided alongside confirmed emergences from and returns to roost in Table F.6 in appendix F.

Table 3.6: Summary of confirmed and potential tee roost activity

Land parcel	Tree ID	Confirmed or potential roost	Species recorded	Dates recorded	Number of bats
ST128002	F003	Confirmed	Soprano pipistrelle	11/10/17 (dawn)	1
	F004	Confirmed	*Myotis sp.*	30/05/17 (dusk)	6
		Confirmed	Soprano pipistrelle	13/07/17 (dawn)	1
		Confirmed	Brown long-eared bat	22/08/17 (dusk)	6
ST153085	F011	Confirmed	Common pipistrelle	18/09/17 (dusk)	1

Land parcel	Tree ID	Confirmed or potential roost	Species recorded	Dates recorded	Number of bats
		Confirmed	Common pipistrelle	20/09/17 (dawn)	1
	F032	Confirmed	Soprano pipistrelle	11/09/17 (dusk)	1
		Potential	Noctule	11/09/17 (dusk)	1
		Potential	Brown long-eared bat	11/07/17 (dusk)	1
		Confirmed	Soprano pipistrelle	13/09/17 (dawn)	1
		Potential	Serotine	13/09/17 (dawn)	1
		Potential	Soprano pipistrelle	14/09/17 (dusk)	1
	F039	Confirmed	Common pipistrelle	17/07/17 (dusk)	1
WS4856	F003	Confirmed	Common pipistrelle	19/07/17 (dawn)	1
		Confirmed	Common pipistrelle	30/08/17 (dusk)	1
WS26353	F002	Confirmed	Common pipistrelle	10/07/17 (dusk)	1
WS75059	F008	Confirmed	Myotis sp.	13/07/17 (dawn)	38

Buildings

2.2.26 A total of 34 buildings were identified during the preliminary BRP assessment (shown in Table 3.5) as requiring focused emergence and re-entry surveys to determine if they were being used by roosting bats. Where roosts were identified these surveys also recoded which species were using the roost, and how many individuals of each species were observed to be using the roost that night. The dates and weather conditions of these surveys are provided in Table F.8 in appendix F.

2.2.27 The following species were recorded during the building emergence and re-entry surveys undertaken during 2017:

- Barbastelle
- Brown long-eared bat
- Common pipistrelle
- Leisler's bat
- Lesser horseshoe bat
- *Myotis sp.*

- Noctule
- *Pipistrellus sp.*
- Serotine
- Soprano pipistrelle

2.2.28 A summary of bat activity associated with the emergence and re-entry surveys conducted on buildings within the survey area is detailed in Table F.10 in appendix F. This describes the activity of each species recorded at each building surveyed, in addition to the first recorded activity of this species after dusk.

2.2.29 Of the species recorded during the emergence and re-entry surveys of buildings, roosts were identified within buildings belonging to brown long-eared bat, common pipistrelle, *Pipistrellus sp.* and soprano pipistrelle, potential roosts belonging to common pipistrelle and serotine were also recorded. As with surveys for tree roosts, potential emergences from and returns to roost were recorded where surveyors saw bats exhibiting roost entry or exit behaviours within close proximity to potential roosting features, but could not confirm observing the bat physically entering or exiting the roost. On 2 occasions, potential emergences of bats from building roosts were recorded by surveyors. In each case, a single bat was seen exhibiting roost emergence behaviour, but in absence of any echolocation which would allow for confirmation of the species of bat.

2.2.30 A summary of all confirmed and potential building roosts identified during the 2017 emergence and re-entry surveys is detailed in Table 3.7. Where roosts have been confirmed, and then a potential emergence or re-entry has been recorded, this has also been noted. Further details of findings of these surveys, including species recorded during each survey within their known emergence or re-entry times are provided alongside confirmed emergences and returns to roost in Table F.9 in appendix F.

Table 3.7: Summary of confirmed and potential building roosts

Land parcel	Building ID	Confirmed or potential roost	Species recorded	Dates recorded	Number of bats
ST103525	F006	Confirmed	Common pipistrelle	15/08/17 (dawn)	1
ST125075	F001	Confirmed	Common pipistrelle	02/08/17 (dawn)	1
		Potential	Common pipistrelle	09/10/17 (dusk)	1
ST126282	F001	Confirmed	Common pipistrelle	10/08/17 (dusk)	1
ST139171	F001	Confirmed	Common pipistrelle	15/08/17 (dusk)	1

Land parcel	Building ID	Confirmed or potential roost	Species recorded	Dates recorded	Number of bats
ST147000	F001	Confirmed	Common pipistrelle	27/09/17 (dawn)	1
		Confirmed	Common pipistrelle	12/10/17 (dusk)	1
		Potential	Common pipistrelle	20/09/17 (dusk)	1
ST84283	F001	Confirmed	Common pipistrelle	26/09/17 (dusk)	1
		Potential	Common pipistrelle	10/10/17 (dusk)	1
		Potential	Serotine	10/10/17 (dusk)	1
	F002	Confirmed	Pipistrellus sp.	02/08/17 (dusk)	1
		Confirmed	Soprano pipistrelle	27/09/17 (dawn)	1
WS25151	F001	Confirmed	Common pipistrelle	14/08/17 (dusk)	1
		Confirmed	Common pipistrelle	03/10/17 (dusk)	1
		Potential	Common pipistrelle	28/09/17 (dawn)	1
		Potential	Common pipistrelle	03/10/17 (dusk)	1
U00016	F001	Potential	Bat sp.	25/10/17 (dusk)	1
WS57193	F001	Confirmed	Common pipistrelle	21/09/17 (dawn)	1
		Confirmed	Common pipistrelle	17/10/17 (dusk)	1
	F002	Confirmed	Common pipistrelle	21/09/17 (dawn)	1
WS75681	F001	Confirmed	Common pipistrelle	11/10/17 (dawn)	1
	F002	Potential	Bat sp.	17/10/17 (dusk)	1
	F005	Confirmed	Common pipistrelle	16/08/17 (dusk)	3
		Confirmed	Common pipistrelle	06/09/17 (dawn)	1
		Confirmed	Common pipistrelle	28/09/17 (dusk)	3
		Confirmed	Brown long-eared bat	28/09/17 (dusk)	1
		Potential	Common pipistrelle	28/09/17 (dusk)	1

2.2.31 Of the 10 building roosts identified during building preliminary BRP assessment, 6 were also confirmed as being utilised by roosting bats in the emergence and re-entry surveys. All of these roosts were also noted as being utilised for roosting purposes for other bat species. Information detailing these findings is present in Table 3.8 below. Droppings were taken where possible during the internal building inspections. These were initially identified by surveyors and where they could be collected, were sent for DNA analysis. Specimens which could be analysed are recorded as a confirmed species identification. Where samples were too old or degraded for analysis, or surveyors observed droppings which could not be collected as they could not be reached safely, these have been recorded as a suspected species identification.

Table 3.8: Emergence and re-entry survey results for building roosts confirmed during initial BRP assessments.

Land parcel	Building ID	Species identified on initial BRP assessment (confirmed/suspected)	Species identified during emergence and re-entry surveys
ST31926	F001	*Plecotus sp*. (suspected)	No emergence or re-entry activity recorded.
ST84283	F001	Serotine (confirmed) and brown long-eared bat (confirmed)	Common pipistrelle (confirmed) Serotine (potential)
ST103525	F007	*Pipistrellus sp.* (suspected)	No emergence or re-entry activity recorded.
ST125075	F001	Brown long-eared bat (confirmed)	Common pipistrelle (confirmed)
ST126282	F001	Serotine (suspected) and *Plecotus sp*. (suspected)	Common pipistrelle (confirmed)
ST147000	F001	Serotine (confirmed) and lesser horseshoe (confirmed from dead specimen)	Common pipistrelle (confirmed)
WS64408	F001	*Pipistrellus sp.*	No emergence or re-entry activity recorded.
WS75681	F001	Brown long-eared bat (suspected)	Common pipistrelle (confirmed)
	F005	Brown long-eared (confirmed from observation of live bat)	Common pipistrelle (confirmed) Brown long-eared bat (confirmed)
WS56543	F001	Brown long-eared (confirmed)	No emergence or re-entry activity recorded.

2.2.32 It should be noted that although no emergence or re-entry activity was recorded for building F007 on land parcel ST106525, common pipistrelle were recorded emerging from building F006 on this land parcel. F006 is adjacent to F007 in a northern direction, and was not subject to an internal inspection as the land owners refused access to internal areas of this building.

2.2.33 A brown long-eared bat roost was also identified at ST97213 in building F001 with DNA analysis of droppings confirming the presence of this species. However, due to lack of access, by the time that this result had been returned,

the survey period for emergence and re-entry surveys had ended. This building was originally assessed as being of moderate potential to support roosting bats, and therefore underwent 1 dusk emergence and 1 dawn return survey. However, no evidence of bats entering or leaving the building was recorded during these surveys.

Survey Constraints

2.2.34 Throughout the 2017 survey season the main constraint to surveys was land access, with limitations to land access resulting from land owner refusal and the presence of dangerous livestock.

2.2.35 Tree emergence and re-entry surveys were impacted by both of these land access limitations. Where this was the case, surveys were programmed within survey windows allowed by land owners, or where livestock could be moved. Surveys were undertaken at least 24 hours apart, and spaced as widely apart as possible within the access window.

2.2.36 Building emergence and re-entry surveys were mainly subject to land access limitations as a result of land owners restricting or refusing access. Where internal building inspections were delayed due to limitations on access into the buildings, but access was allowed for external surveys, emergence and re-entry surveys were undertaken in line with the BRP assigned to each building during the external building inspections. Where access for internal inspections then became available, surveys were undertaken at the earliest opportunity and the BRP assigned to buildings amended accordingly. Where this resulted in the upgrade of the assigned BPR, additional surveys were programmed. Where access for external surveys was granted in parallel to internal building access, emergence and re-entry surveys were undertaken at the earliest opportunity. As a result of limited access through the survey season, some emergence and re-entry surveys could not commence, or, internal inspections occur until September, which resulted in some surveys being undertaken in September and October 2017, missing the peak bat survey period. However, no significant accumulations of droppings were recorded within any of these buildings, and therefore, is considered to be low potential to support maternity roosts.

2.2.37 Although land access posed a significant limiting factor to when surveys could be undertaken throughout the 2017 survey season, it is not thought to have significantly impacted the results obtained during these surveys. This is due to the southern latitude of the scheme, and the continuation of suitable weather conditions throughout September and October 2017, meaning that the surveys could justifiably continue until the end of October 2017 in line with the *BCT Good Practice Guidelines*[4]. This was also shown to be evident with bat activity and roost emergences and re-entries still recorded during surveys undertaken throughout October 2017.

Bat activity transects

2.2.38 All of the transects described below were designed prior to the preferred route announcement and any issue of detailed design. As a result of this, and consultation with Natural England on the lengths of the transects which were being undertaken, the 'online' transect routes were amended after the May 2017 surveys.

2.2.39 The Online 1 transect, running to the south of the existing A303, was split into Online 1.1 and Online 1.2 transect. Online 1.1 largely followed the western section of Online 1, and extending further west. Online 1.2 largely following the eastern section of Online 1, extending to cover an additional field boundary in the centre of the route, and another at the eastern extent.

2.2.40 The Online 2 transect, running to the north of the existing A303, was split into the Online 2.1 and Online 2.2 transects. Online 2.1 largely comprised the western section of Online 2, extending to cover an additional field boundary to the west, and 2 additional field boundaries centrally. Online 2.2 largely comprised the eastern section of the Online 2 transect covering an additional field boundary to the west and 1 to the at the eastern extent. These extensions ensured that the newly split transects still met the distance parameters as described in the *BCT Good Practice Guidelines*[4].

2.2.41 Transects Offline 1 and Offline 4 remained consistent in their planned route throughout the 2017 survey season. Transect routes are shown in Figure E.5 (April and May) and Figure E.6 (June to October) in appendix E.

2.2.42 The majority of activity recorded across the transect surveys were dominated by common pipistrelle and soprano pipistrelle. With Leisler's bat, noctule and serotine mainly recorded adjacent to open areas and noted to be foraging. Large numbers of *Myotis sp.* were also recorded across the transect surveys. Brown long-eared bat were recorded more occasionally, but this species is notoriously difficult to pick up from their calls, either calling very quietly, not activating the bat detectors, or not calling at all. The lower numbers of calls from this species should therefore not be taken as them being present in lower numbers. The occasional pass from rare bat species such as barbastelle, and lesser horseshoe were also recorded during transect surveys. Refer to Figure E.8 in appendix E which shows the bat activity recorded during the surveys.

2.2.43 The following species were identified to be using habitats within the survey area during the transect surveys for foraging and commuting:

- Barbastelle bat
- Brown long-eared bat
- Common pipistrelle

- Leisler's bat
- Lesser horseshoe bat
- *Myotis sp.*
- Noctule
- *Pipistrellus sp.*
- Serotine
- Soprano pipistrelle.

2.2.44 The results of the transects are summarised per route below, with details provided in reference to routes detailed in Figure E.5 and Figure E.6 in appendix E, and full details of each survey shown in Table F.11 and Table F.12 in appendix F.

Online 1

2.2.45 Five species of bat were recorded during the April and May 2017 Online 1 transect. However, these were not the same 5 species on each occasion, with brown-long eared bat recorded on April and not May, and serotine not recorded in April but recorded in May. Common pipistrelle, *Myotis sp., Pipistrelle sp.* and soprano pipistrelle were all recorded in both months.

2.2.46 No bat activity was recorded during April and May 2017 west of Camel Cross, with activity only recorded east of the Orchard Park Caravan Park, West Camel during April, and east of Hawk House in May. Foraging and commuting activity of common pipistrelle was recorded the furthest east during April, with bats recorded foraging around the southern edge of Ridge Copse. However, in May, no bat activity was recorded east of Eyewell House, with common pipistrelle recorded along the section north-west of here.

2.2.47 Common pipistrelle were recorded foraging within the fields south of the A303 and north of Eyewell House during the April and May surveys, with the majority of activity recorded for this species noted along hedgerows in the fields between Howell Hill and Traits Lane. The occasional soprano pipistrelle, Leisler's bat and *Myotis sp.* pass were also recorded along these hedgerows, particularly those further west, towards Howell Hill. Of those in this area, the hedgerows running north to south recorded the majority of bat activity, with limited activity along hedgerows running east to west, immediately south of the existing A303.

2.2.48 Despite no records in April, a number of records of serotine foraging and commuting were recorded during May. The majority of these calls were recorded along hedgerows running east to west, on the southern boundary of the field south-east of Conegore Corner and east of Howell Hill. Serotine was also observed immediately west of Howell Hill along hedgerows directly across from records east of Howell Hill. These hedgerows therefore have the potential

to form important linear features for commuting serotine, including individuals using roosts identified within the wider environment. Across the survey area activity was low with areas of moderate activity.

Online 1.1

2.2.49 Covering the western section of the Online 1 transect surveyed in April and May, transect Online 1.1 focused on the route west of Howell Hill, and south of the existing A303. The land covered by this transect had notably less foraging and commuting activity recorded than the other 5 transects, however species diversity across the transect was 1 of the highest, peaking at 9 species recorded during the September survey comprising, brown long-eared bat, common pipistrelle, Leisler's bat, *Myotis sp.,* noctule, *Pipistellus sp.,* serotine and soprano pipistrelle. Lesser horseshoe bat was the only species of those recorded across all transect surveys which was not recorded.

2.2.50 The area to the west of Camel Cross, which had been no records of bat activity in April and May was observed to have limited activity in June, with single common pipistrelle and *Pipistrelle sp.* passes recorded. However, activity peaked in July, with records of common pipistrelle, Leisler's bat, noctule, serotine and soprano pipistrelle foraging and commuting along hedgerows parallel to the existing A303, and those connecting to this.

2.2.51 A single barbastelle pass was also recorded in July along the hedgerow to the south-east of Hawk House. East of Camel Cross. Common pipistrelle, noctule, serotine and soprano pipistrelle were also recorded commuting along hedgerows between Hawk House and Orchard Park Caravan Park.

2.2.52 A number of common pipistrelle, *Pipistrelle sp.* and soprano pipistrelle calls were recorded during August at the northern extent of the lane that leads from Sunnydene Farm towards Hawk House, in addition to a single serotine pass. This area links habitats west of Camel Cross to the hedgerows to the east leading to Orchard Park Caravan Park. The public footpath running along the north of this caravan park was also noted for the activity levels of a number of bat species, particularly common pipistrelle and soprano pipistrelle throughout the surveys undertaken in 2017. Low numbers of noctule and Leisler's calls were also recorded here during August, with notable levels of common pipistrelle and *Myotis sp.* activity in October 2017.

2.2.53 With the exception of the public footpath adjacent to Orchard Park Caravan Park, limited foraging and commuting activity was recorded between Plowage Lane and Howell Hill throughout June and July, with evidence of the occasional common pipistrelle, soprano pipistrelle and *Pipistrellus sp.* pass. However, during the August survey, clusters of soprano pipistrelle activity was recorded along hedgerows immediately adjacent to the existing A303, west of The

Bakery, West Camel, and directly south, along an established hedgerow, at the corner of a field where 2 hedgerows intersect and a number of trees are present. Common pipistrelle and noctule were also recorded in this area, with further records of common pipistrelle, *Pipistrellus sp.* soprano pipistrelle and *Myotis sp.* also noted along the hedgerow adjacent to the A303, and a single serotine pass along connecting hedgerows.

Online 1.2

2.2.54 Covering the eastern section of the Online 1 transect surveyed in April and May, transect Online 1.2 focuses on the route east of Howell Hill and south of the existing A303. The land covered by this transect has notably more foraging and commuting activity recorded than that covered by Online 1.1. Distinct areas where higher levels of foraging and commuting are evident within Online 1.2, particularly at the eastern extent of the survey route.

2.2.55 Species diversity across transect Online 1.2, like Online 1.1 is also 1 of the highest, with 9 species recorded. These comprised brown long-eared bat, common pipistrelle, Leisler's bat, lesser horseshoe bat, *Myotis sp.,* noctule, *Pipistrellus sp.,* serotine and soprano pipistrelle. This includes the lesser horseshoe bat however, barbastelle were not recorded during surveys of this transect.

2.2.56 During April and May, when the land covered by Online 1.2 had been surveyed as part of the Online 1 transect, the fields between Howell Hill and Traits Lane had been noted as being where the majority of bat activity had been recorded. However, activity within the majority of the western extent of this area was absent during June and July.

2.2.57 Two clusters of activity were recorded during the early July dusk transect along a hedgerow running from north to south, west of Eyewell House. A small cluster of common pipistrelle activity was recorded with individuals foraging and commuting along the southern extent of this hedgerow. A single *Myotis sp.* and soprano pipistrelle pass also observed. A larger cluster of common pipistrelle activity was recorded further north along this hedgerow, towards the existing A303, with individuals recorded commuting and foraging. *Myotis sp.* were also recorded commuting and foraging along tree lines north of Eyewell House, with lesser levels of serotine and common pipistrelle activity. Low levels of common pipistrelle and soprano pipistrelle were also recorded here during July, with multiple bat passes observed from *Myotis sp.* and serotine in the north-eastern corner of these tree lines.

2.2.58 Levels of activity between Howell Hill and Traits Lane increased again in August and September, with foraging and commuting activity from common pipistrelle and soprano pipistrelle, again recorded along hedgerows running north to south

in this area. The occasional Leisler's bat pass was also recorded here during August, with serotine also noted foraging and commuting along the hedgerow running east to west immediately south of the existing A303. Lesser horseshoe was recorded for the first time on transect surveys south of the existing A303 during August, with low levels of activity recorded along north to south and east to west hedgerows, immediately south of the existing A303, and at the northern end of Traits Lane. However, no activity from this species was recorded after this. Common pipistrelle and soprano pipistrelle were also noted foraging and commuting along treelines in the field north of Eyewell House in September, with the occasional *Myotis sp.* and brown-long eared bat pass. By October, activity between Howell Hill and Traits Lane was limited to common pipistrelle commuting and foraging north of Eyewell House, with a single *Pipistrelle sp.* pass at Canegore corner, a *Myotis sp.* recording to the south-east of this, and a serotine pass just north of Eyewell House.

2.2.59 The highest levels of activity were recorded east of Traits Lane, along Gaston Lane and Ridge Copse, but particularly north of Sparkford Hill along the A359. Common pipistrelle were noted to be foraging and commuting the whole way along Gaston Lane, and along the A359 north of Sparkford Hill, with a cluster of activity recoded at the junction of Gaston Land and the existing A303 during the early July dusk survey. Serotine were also recorded along the western section of Gaston Lane, and in the field north of Sparkford Hill, along hedgerows running north to south adjacent to the A359, and east to west south of the band of woodland adjacent to the A303. Noctule activity was noted in the early July surveys to the south of this band of woodland over the field north of Woodstock House. Noctule and *Pipistrelle sp.* passes were recorded extending north along the residential street, east of Sparkford services, with only a single *Pipistrellus sp.* pass recorded along this area after this, during the July transect survey. The early July surveys recorded peak levels of activity in this area.

2.2.60 Low levels of *Myotis sp.* activity was recorded around Ridge Copse and along Gaston Lane during mid-July and September, with serotine also observed within Ridge Copse. Low levels of noctule activity were also recorded in the field north of Woodstock House in September. However, throughout mid-July to October higher levels of common pipistrelle activity was recorded, with individuals continuing to forage down Gaston Lane and across the area north of Sparkford Hill, west of the A359 throughout the surveys.

2.2.61 Lesser horseshoe bat were recorded during the August transects foraging and commuting along Gaston Lane. However, no other records during survey conducted during the other months of 2017 were noted.

Online 2

2.2.62 Eight species of bat were recorded during the April and May Online 2 transect surveys. Common pipistrelle, soprano pipistrelle, *Pipistrellus sp.* brown long-eared bat, *Myotis sp.* and lesser horseshoe bat were recorded in April. No records of brown long-eared bat were noted in May, however serotine and noctule and Leisler's bat were recorded, all of which were absent from the April surveys.

2.2.63 No activity was recorded in the section of the transect which runs through Downhead, west of West Camel Hill during April, with peak foraging and commuting activity in April localised to the lane immediately east of Steart Hill, leading to Steart Wood, and along tree lines and woodland edge at the entrance of Hazlegrove School. Activity at eastern extent of the transect was limited to common pipistrelle and soprano pipistrelle commuting and foraging. The greatest species diversity in April was noted along the lane between Steart Hill and Steart Wood, with records of foraging and commuting common pipistrelle, lesser horseshoe bat, *Myotis sp., Pipistrellus sp.* and soprano pipistrelle. A single soprano pipistrelle commuting pass was recorded along Slate Lane, with another on the south-eastern corner of Steart Wood. A single common pipistrelle was also recorded foraging along the southern edge of Pepper Hill Copse.

2.2.64 Activity was seen to extend further west during the May survey, with common pipistrelle commuting and foraging recorded in Downhead and in the western section of Slate Lane. Soprano pipistrelle were also recorded with numerous records of foraging and commuting both along the lane and immediately south of it, over agricultural fields. The track between Steart Hill and Steart Wood saw a drop in the number of species using this from April, with common pipistrelle recorded commuting and foraging where the track meets Steart Hill. A single Leisler's bat pass and 2 noctule passes were recorded around the quarry between Pen Hill Copse and Camel Hill farm. Constant common pipistrelle activity from foraging and commuting bats was recorded along the lane between Vale Farm and Rewber Brake. Two clusters of common pipistrelle foraging and commuting activity were also recorded along tree lines connecting the band of woodland north of Camel Hill Farm and Pepper Hill Copse. Low numbers of lesser horseshoe bat, serotine and soprano pipistrelle were also recorded along this hedgerow. Further east of Pepper Hill Copse, a cluster of soprano pipistrelle commuting and foraging activity was identified along the tree line running north to south between the field north of Pepper Hill Copse and west of the woodland at the entrance of Hazlegrove School. Single commuting passes were also recorded from brown long-eared bat, common pipistrelle and *Myotis sp.* A noctule was also recorded foraging and commuting along the hedgerow and ditch running east to west, situated north of the woodland at the entrance of Hazlegrove School.

Online 2.1

2.2.65 Covering the western section of the Online 2 transect surveyed in April and May, transect Online 2.1 focused on the route west of Steart Hill and north of the existing A303. Seven species of bat were recorded over this transect, comprising common pipistrelle, Leisler's bat, *Myotis sp.,* noctule, *Pipistrellus sp.,* serotine, soprano pipistrelle.

2.2.66 Common pipistrelle and soprano pipistrelle were recorded foraging and commuting up and down the lanes around Downhead, west of Slate Lane, with low levels of activity across this section of the transect route during June. Activity levels for these species increased in this area in July, with a single serotine pass also noted by surveyors. However, activity up and down these lanes decreased after July, with low levels of common pipistrelle and serotine commuting activity recorded in August, low levels of soprano pipistrelle activity, in addition to a single noctule pass in September, and a single common pipistrelle pass in September and in October 2017.

2.2.67 The highest volume of activity across the 2017 survey season along transect Online 2.1 was recorded along the western section of Slate Lane, and along hedgerows running north to south, towards the current A303, south of Slate Lane. This comprised mainly common pipistrelle and soprano pipistrelle foraging and commuting, with activity peaking in the fields south of Slate Lane in September, and along the eastern section of State Lane in October. Low levels of noctule and *Myotis sp.* commuting and foraging were recorded along hedgerows running east to west, adjacent to the A303 in July, with a single serotine pass and common pipistrelle pass also recorded along hedgerows running north to south between Slate Lane and the existing A303. A single Leisler bat pass and 1 serotine commuting and foraging along the western part of Slate Lane was recorded in June. One *Myotis sp.* pass was also recorded in the western section of Slate Lane in September. Noctule were again recorded along hedgerows running east to west along the existing A303, with a single commuting pass recorded in October, in addition to 1 along connecting hedgerows running north to south up to Slate Lane.

2.2.68 Lower levels of activity were recorded across the 2017 surveys in the eastern area of Slate Lane, as it joins Steart Hill. Low levels of noctule activity were recorded in this part of the transect in June, in addition to common pipistrelle and soprano pipistrelle commuting and foraging activity along the lane. Low levels of common pipistrelle activity was also recorded in this part of Slate Lane in July and September, in addition to low levels of *Myotis sp.* foraging and commuting in September. No bats were recorded using this section of Slate Lane in October 2017.

Online 2.2

2.2.69 Covering the eastern section of the Online 2 transect surveyed in April and May, transect Online 2.2 focuses on the route east of Steart Hill, and north of the existing A303. Nine species of bat were identified across this transect during the 2017 surveys, comprising brown long-eared bat, common pipistrelle, Leisler's bat, lesser horseshoe bat, *Myotis sp.,* noctule, *Pipistrellus sp.,* serotine and soprano pipistrelle, with only an absence of barbastelle records from the list of all species recorded across all transect surveys in 2017.

2.2.70 Bat activity recorded in June was limited between Steart Hill and Camel Hill Farm, with low levels of commuting and foraging activity from common pipistrelle, lesser horseshoe bat and soprano pipistrelle along the lane between Steart Hill and Steart Wood. Activity across this part of the transect increased in July with records of commuting and foraging soprano pipistrelle along the lane, in addition to low levels of noctule commuting and foraging. Activity dropped off again in August with low levels of common pipistrelle commuting and foraging, in addition to a single record of serotine using the lane. However, in September 3 species were recorded using the lane for commuting and foraging purposes, comprising common pipistrelle, lesser horseshoe bat and soprano pipistrelle. Low levels of noctule foraging activity was also noted in the field directly east of Steart Hill and south of the lane. Species diversity along this part of the transect fell again in October with only common pipistrelle recorded along the lane and in the field to the south. However, moderate levels of commuting and foraging activity for this species was recorded.

2.2.71 Low levels of bat activity were recorded between Pen Hill Copse and Vale Farm during the transect surveys undertaken in 2017. Limited soprano pipistrelle foraging and commuting activity was recorded at the south-east corner of Pen Hill Copse during September, with limited common pipistrelle activity recorded in October. Low levels of serotine commuting and foraging activity was recorded along the transect between Pen Hill Copse and Vale Farm during August and September, with single noctule and common pipistrelle pass recorded during September.

2.2.72 High levels of common pipistrelle commuting and foraging activity was recorded along the lane between Vale Farm and Rewber Brake during the June and July surveys, with soprano pipistrelle also identified commuting along this track in June, and a single serotine pass in August. Numerous common pipistrelle passes were also recorded along the track to the east towards Camel Hill Farm in the July, August and September surveys, and along the western and northern edge of the band of woodland north of Camel Hill Farm in August and September 2017. No common pipistrelle were recorded in October, however moderate serotine foraging and commuting activity was recorded along the north-eastern edge of this band of woodland in October.

2.2.73 The tree line between Camel Hill Farm and Pepper Hill Copse was noted as being used by noctule, with foraging and commuting activity recorded in June. However, between July and October this part of the transect was mainly used by low numbers of foraging and commuting common pipistrelle. Lesser horseshoe bat was also recorded at the north-western corner of Pepper Hill Copse in September. Clusters of common pipistrelle foraging and commuting activity was recorded along the western edge of Pepper Hill Copse in July, with this activity extending along the east to west hedgerow extending from the south-eastern corner of this woodland block. Low levels of serotine activity was also recorded at the south-western corner of Pepper Hill Copse during the July survey. Activity levels around the edge of this woodland block decreased in August, with low levels of soprano pipistrelle activity at the south-western corner of the woodland, and lesser horseshoe bat at the north-west corner and along the hedgerow extending east from the south-east corner of the woodland block. A single serotine pass was also recorded along this hedgerow during this month's surveys. This hedgerow was also recorded to have moderate levels of activity from *Pipistrellus sp.* and soprano pipistrelle during June and common pipistrelle in June and August.

2.2.74 The tree line running north to south, along the western boundary of the field to the west of the woodland block at the entrance to Hazlegrove School, was noted for its bat activity across the 2017 survey season. Although activity in June was limited to low levels of common pipistrelle, Leisler's bat, noctule and serotine, this increased month by month. In July moderate levels of common pipistrelle, *Pipistrellus sp.* and soprano pipistrelle foraging and commuting activity was noted, with low levels of brown long-eared bat activity. Common pipistrelle and soprano pipistrelle were still recorded with moderate activity levels during August, with records of commuting and foraging bats of these species reduced to lower numbers in September. During the October surveys no bats were recorded along this treeline, but soprano pipistrelle was noted with moderate levels of commuting and foraging along the hedgerow north of this.

2.2.75 High levels of noctule and common pipistrelle activity were recorded during June along the eastern edge of the woodland block at the entrance of Hazlegrove School, over the field immediately east of this, and along hedgerows and treelines around the south and east of this field. During the same month, moderate levels of serotine and Leisler's commuting and foraging activity was also recorded. A cluster of soprano pipistrelle activity was also recorded along the hedgerow extending north of the woodland block at the entrance of Hazlegrove School, and adjacent to the ditch, with moderate activity levels of this species recorded at along the track to Hazlegrove School as it turns north, away from the band of woodland north of the Sparkford roundabout. Activity levels in this area declined during July, with moderate levels of common pipistrelle and *Pipistrellus sp.* activity around the woodland block at the

entrance of Hazlegrove School. A single noctule bat pass and soprano pipistrelle pass was also recorded at the north-east corner of this woodland, with moderate levels of activity from these species along the woodland north of the Sparkford roundabout. Activity in this part of the transect during August was limited to low levels of common pipistrelle activity. However, during September constant foraging and commuting activity from common pipistrelle has been recorded along the hedgerow extending north from the woodland block at the entrance of Hazlegrove school, with moderate activity along the north and east edges of the woodland. The low levels of Leisler's bat, noctule and soprano pipistrelle were recorded at the north-west corner of the woodland, and *Myotis sp.,* soprano pipistrelle and serotine along the track leading to Hazlegrove school. By the October surveys low levels of common pipistrelle and soprano pipistrelle were noted around the edges of the field, west of the Hazlegrove School entrance, and along the east edge of the woodland block here. Low levels of serotine activity were also recorded along the eastern edge of the woodland block.

Offline 1

2.2.76 The Offline 1 transect focused on habitats with the potential to support commuting and foraging bats from Podimore to Downhead. Nine species of bat were recorded during the surveys undertaken on the Offline 1 transect, including barbastelle. The only species recorded across all transect surveys which was not noted as present along Offline 1 was the lesser horseshoe bat.

2.2.77 Low levels of bat activity were recorded across the Offline 1 route during the April survey. No activity was recorded within habitat west of Podimore, and south of the existing A303. Activity levels remained low through to August, with a single soprano pipistrelle pass and low levels of common pipistrelle commuting noted in July and August, with an additional Leisler's bat pass also recorded in August.

2.2.78 The most westerly records of bat activity in April was recorded immediately south of the bridge from Podimore over the exiting A303. Low levels of common pipistrelle and *Pipistrellus sp.* were recorded commuting and foraging along Higher Farm Lane and then along tree lines immediately adjacent to the existing A303. Low levels of soprano pipistrelle activity was also recorded to the north of the bridge during this month.

2.2.79 Limited activity was also recorded along Eastmead Lane with low levels of commuting and foraging activity of brown long-eared bat, common pipistrelle, *Pipistrelle sp.* and soprano pipistrelle.

2.2.80 Low levels of commuting and foraging *Pipistrelle sp.* and soprano pipistrelle was also recorded south of the bridge over the A303 in May. Activity peaked across

the bridge during the July surveys with moderate levels of common pipistrelle foraging and commuting south of the bridge and common pipistrelle and soprano pipistrelle recorded foraging and commuting to the north of the bridge. Activity in this area was limited from August onwards, with low levels of common pipistrelle activity noted in September. Bats were recorded using the hedgerows running east to west between the bridge and Eastmead Lane, with peak activity recorded in July 2017 with low levels of commuting and foraging activity recoded from common pipistrelle, Leisler's bat, noctule, serotine and soprano pipistrelle. Common pipistrelle, *Myotis* sp and serotine were all recorded along Eastmead Lane in July in low numbers, with brown long-eared bat and soprano pipistrelle recorded along hedgerows east of this. Although fewer species were recorded along Eastmead Lane in August, these comprising common pipistrelle, Leisler's bat and soprano pipistrelle, peak foraging and commuting activity was recorded during this month in this area.

2.2.81 Bat activity was also recorded within and along edge habitats around Annis Hill Wood. Low levels of brown long-eared bat, common pipistrelle, *Pipistrelle sp.*, serotine and soprano pipistrelle were recorded in April with low levels of commuting and foraging activity along the south of Annis Hill Wood. A single soprano pipistrelle commuting pass was also recorded within the woodland. Common pipistrelle, Leisler's bat, serotine and soprano pipistrelle were also recorded within the woodland during the May survey with common pipistrelle, Leisler's bat, serotine and soprano pipistrelle recorded along the northern boundary of the woodland. However, peak activity and species diversity within this section of the transect was recorded in July, with common pipistrelle and soprano pipistrelle commuting and foraging along the southern woodland boundary and within central areas of Annis Hill Wood, and barbastelle, *Mytotis sp.* and serotine, along the northern woodland boundary.

2.2.82 The hedgerow running east to west from Annis Hill Wood along to Downhead Manor Farm was observed to have 1 of the higher levels of commuting and foraging activity across this transect. Limited activity was recorded in April, with 2 soprano pipistrelle commuting passes. However, recorded commuting and foraging activity increased in July, with common pipistrelle, noctule, *Myotis sp.*, *Pipistrellus sp.* and soprano pipistrelle recorded. Barbastelle was also recorded along this hedgerow in September and brown long-eared bat in October.

2.2.83 Limited foraging and commuting activity was recorded along hedgerows north of Downhead Manor Farm throughout the 2017 surveys. Low levels of common pipistrelle, *Myotis sp. Pipistrelle sp.*, serotine and soprano pipistrelle activity was recorded along this section of the transect. With peak activity recorded south-west of Newclose Farm in May, with moderate levels of foraging and commuting activity from common and soprano pipistrelle.

Offline 4

2.2.84 The Offline 4 transect focused on habitats with the potential to support commuting and foraging bats east of Camel Hill House, and north of Pepper Hill Copse. Nine species of bat were recorded during the surveys undertaken on the Offline 4 transect, comprising brown long-eared bat, common pipistrelle, Leisler's bat, lesser horseshoe bat, *Myotis sp.*, noctule, *Pipistrellus sp.*, serotine and soprano pipistrelle. The only species recorded across all other transects which was not noted as present along Offline 4 was barbastelle bat.

2.2.85 Limited bat activity was recorded during the April survey, with low levels of brown long-eared bat, common pipistrelle and soprano pipistrelle along hedgerows running east to west forming the boundaries of agricultural fields north of Pepper Hill Copse. This was also observed during the May surveys, with soprano pipistrelle also recorded commuting and foraging along the hedgerow forming the southern boundary of this field. A noticeable increase in activity across the transect route was observed during June, with high levels of soprano pipistrelle activity along the southern boundary, north-west corner and north-east corner of this agricultural field. Leisler's bat and noctule were also recorded in the north-eastern corner of this field, with a single serotine pass immediately south of this.

2.2.86 Brown long-eared bat, common pipistrelle and serotine were also recorded with low levels of commuting and foraging activity north of Camel Hill house during the May surveys.

2.2.87 Moderate levels of commuting and foraging activity attributed to common pipistrelle, Leisler's bat, serotine and soprano pipistrelle were recorded during the June surveys along hedgerows following the east and west boundaries of the field immediately west of the woodland at the entrance of the entrance to Hazlegrove School, and along the western edge of this woodland. A single brown-long eared bat pass was also recorded here in June.

2.2.88 High levels of foraging and commuting activity were recorded along the eastern edge of the woodland at the entrance to Hazlegrove school, along the hedgerow extending east from the south-east corner of the woodland and following the track leading up to the school, ended at the cattle grid during the June surveys. Records of common pipistrelle and noctule could be attributed to the majority of this activity, with the occasional brown long-eared bat, noctule serotine and soprano pipistrelle record. Activity levels were observed to decline in July, with moderate records of commuting and foraging common pipistrelle, noctule and soprano pipistrelle. Low levels of common pipistrelle commuting and foraging activity was recorded in August with 2 records in the north-east corner and an additional 2 in the band of woodland north of Sparkford roundabout. The September survey saw activity along the north and east edges

of the woodland increase, with moderate levels of common pipistrelle commuting and foraging. Low levels of common pipistrelle, serotine and soprano pipistrelle activity were also recorded along the north edge of the band of woodland north of Sparkford roundabout. Low levels of commuting and foraging activity was recorded in October with common pipistrelle and soprano pipistrelle observed along the east edge of the woodland, the hedgerow running east of this and following the track to Hazlegrove School. A single serotine commuting pass was also recorded along the east of the woodland at the entrance to Hazlegrove School.

2.2.89 Limited foraging and commuting activity from common pipistrelle and soprano pipistrelle were also recorded during April in the field east of Sparkford Hall. A single serotine commuting pass was also recorded in this area during the May surveys. Low levels of common pipistrelle and noctule commuting and foraging activity was also recorded along hedgerows in this area and across the field in June. Activity levels and species recorded in this area were noted to peak in July, with foraging and commuting activity recorded from common pipistrelle, serotine and soprano pipistrelle. One cluster of soprano pipistrelle commuting and foraging activity was recorded in August, with 2 single commuting passes from this species in September and low levels of common pipistrelle and soprano pipistrelle activity in October.

Survey constraints

2.2.90 Where transect Online 1 was split into 2 transects for the surveys from June 2017 onwards, adjustments were also made to accommodate where land access was withdrawn by land owners. Routes were designed to reflect the Online 1 route as closely as possible, however, the hedgerow that a number of serotine passes had been recorded along in May, east of Howell Hill could no longer be surveyed. This is not thought to have had a significant impact on the assessment of how the scheme may affect bat activity in this area, as the importance of this hedge was highlighted during the May surveys.

2.2.91 Due to the mobile nature of livestock, and the active farming activities across the land surveyed, transect routes were scoped the day before surveys were programmed to take place, to identify potential hazards. Where transect routes were blocked, surveyors walked routes as close to the designed route as possible (for example, on the opposite side of a hedgerow). Although this resulted in some alterations to routes month to month, routes were kept as close to the designed route, with surveyors observing features from a distance where they had to deviate slightly further. This has therefore not been determined to have had a significant impact on the assessment.

2.2.92 Dusk and dawn transects were programmed to be undertaken during June 2017. However, due to a persistent spell of heavy rain towards the end of June,

the dusk and dawn survey for Online 1.2 had to be rescheduled. This was subsequently undertaken on the 3 and 4 July 2017. Although this falls just outside the June window, the temporal proximity to this window is small enough that it has been deemed this would not have a significant impact on the results obtained.

Static bat detectors

2.2.93 Information obtained from static bat recorders, placed along transects is summarised below and described in Table F.15 and Table F.16 in appendix F. Three static recorders are associated with each transect route. However, during April and May 2017 3 detectors were deployed along the Online 1 transect route and another 3 along Online 2. From June until October these transects were split up each going on to form 2 transects, all of which had 3 detectors deployed on each transect, on each of these months.

2.2.94 Table 3.9 details which static bat detectors were associated with the transect routes listed above. Locations can also be seen in Figure E.1 in appendix E.

Table 3.9: Static bat detectors and their associated transect route

Static bat detector ID	Associated transect route
Online 1.1a	Online 1
	Online 1.1
Online 1.1b	
Online 1.1c	
	Online 1
Online 1.2a	Online 1.2
Online 1.2b	
Online 1.2c	
	Online 1
Online 2.1a	Online 2.1
Online 2.1b	
Online 2.1c	
	Online 2
Online 2.2a	Online 2
	Online 2.2
Online 2.2b	
Online 2.2c	
	Online 2
Offline 1a	Offline 1
Offline 1b	
Offline 1c	
Offline 4a	Offline 4
Offline 4b	
Offline 4c	

2.2.95 Twelve species were recorded on static bat detectors between April and October 2017. These comprised:

- Barbastelle bat
- Brown long-eared bat
- Common pipistrelle
- Greater horseshoe bat
- Leisler's bat
- Lesser horseshoe bat
- *Myotis sp.*
- Nathusius' pipistrelle
- Noctule
- *Pipistrellus sp.*
- Serotine
- Soprano pipistrelle

2.2.96 Details of notable activity and which species were recorded on each static recorder is described below. Additional details are provided in Table F.15 and Table F.16 in appendix F.

Online 1.1a

2.2.97 Eight species were recorded on Online 1.1a between April and October 2017, comprising, common pipistrelle, *Myotis sp.*, Leisler's bat, soprano pipistrelle, *Pipistrellus sp.*, serotine, noctule and brown long-eared bat, listed in order of highest to lowest abundance. All 8 of these species were recorded during the June deployment, with this month showing the highest species diversity.

2.2.98 Peak activity was recorded in August, with 547 calls over the deployment period. Common pipistrelle formed the majority of these calls with 336 calls, compared to the next abundant species that month, *Myotis spp.* with 65 calls. Common pipistrelle dominated the number of calls recorded at this location throughout 2017. June was recorded with the second highest number of bat calls with 519.

2.2.99 Overall at this location common pipistrelle calls comprised 54.2% of all calls, *Myotis sp.,* accounted for 8.9%, Leisler's bat 7.9%, soprano pipistrelle 6.2%, *Pipistrellus sp.* 5.3%, serotine 4.2%, noctule 2.2% and brown long-eared bat 0.6%. Other calls were too quiet or distorted to be attributed to a particular species.

Online 1.1b

2.2.100 Nine species were recorded on Online 1.1b between June and October 2017, comprising Leisler's bat attributed to 32.7% of all calls, common pipistrelle with

20.3%, *Myotis sp.* 12.7%, serotine 11.3%, noctule 7.02%, *Pipistrellus sp.* 3.4%, soprano pipistrelle 2.6%, brown long-eared bat 1.8%, lesser horseshoe bat 0.2% and barbastelle 0.1%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.101 Eight of these species were recorded in June, July, August and October deployments, with only barbastelle not recorded in these months. Greatest species diversity recorded at this location was therefore recorded over these 3 months. Barbastelle was recorded once during the September deployment, with a single call.

2.2.102 Peak activity was recorded in July, with a total of 485 bat calls. The species with the largest number of calls in this location during July was Leisler's bat with 152 calls recorded. High numbers of calls from Leisler's bat were also recorded in June and October, with this species attributing to the highest number of total calls for each of these months too. June was recorded as having the second highest activity levels with 411 calls.

Online 1.1c

2.2.103 Ten species were recorded on Online 1.1c between April and October 2017, comprising common pipistrelle with 38.3% of all calls, *Myotis sp.* with 13.8%, *Pipistrellus sp.* 7.9%, serotine 6.5%, Leisler's bat 4.6%, soprano pipistrelle 3.8%, noctule 0.3%, lesser horseshoe bat 0.03%, brown long-eared bat 0.03% and barbastelle 0.01%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.104 Greatest species diversity was recorded in April, May and September, with barbastelle and brown long-eared bat absent from April records, barbastelle and lesser horseshoe bat in May and brown long-eared bat and serotine in September. Low levels of activity was recorded from barbastelle, brown long-eared bat and lesser horseshoe in this location. Brown-long eared bat was only recorded during the May deployment, with a single barbastelle call noted is September only. One lesser horseshoe call was recorded in April, with 2 in September.

2.2.105 Peak activity was recorded in October, with 6,288 bat calls recorded. The majority of these calls could be attributed to common pipistrelle with 3,669 calls recorded at this location this month. This was over double the previous peak number of calls for this species at 571 calls in July, with this month also noted as having the next highest total number of calls at 2,180 at this location. High numbers of *Myotis sp.* were noted during September, with 455 passes, forming the majority of the 812 calls recorded that month.

Online 1.2a

2.2.106 Eleven species were recorded on Online 1.2a between June and October 2017, comprising common pipistrelle with 34.5% of all calls, soprano pipistrelle with 15.1%, *Myotis sp.* 13.8%, barbastelle 4.8%, brown long-eared bat 2.5%, Leisler's bat 1.8%, *Pipistrellus sp.* 1.8%, serotine 1.2%, noctule 0.6%, lesser horseshoe 0.1% and greater horseshoe 0.02%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.107 The greatest species diversity was recorded in September with all 11 species recorded at this location. September was the only month that greater horseshoe was recorded at this location, with one single call. Low levels of lesser horseshoe activity was also recorded, with 1 call in July, September, and October and two calls in August.

2.2.108 Peak activity was recorded in this location in October with a total of 2,546 calls recorded at this location this month. This was over twice the number of the next highest total calls at this location, with 1,019 recorded in September. The largest number of calls in October could be attributed to common pipistrelle with 994 calls, however, high levels of *Myotis sp.* and soprano pipistrelle activity was recorded with 350 and 393 calls recorded respectively in this month. The level of barbastelle activity at this location was noted in September and October with 93 and 140 calls recorded for each month respectively.

Online 1.2b

2.2.109 Eleven species were recorded at the location of Online 1.2b between June and October 2017, comprising, common pipistrelle with 32.2% of all calls, Leisler's bat with 16%, *Myotis sp.,* 10%, serotine 7.8%, *Pipistrellus sp.* 6.1%, brown long-eared bat 6%, noctule 4.5%, soprano pipistrelle 4%, lesser horseshoe bat 1.2%, barbastelle, 0.2% and greater horseshoe 0.1%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.110 Greatest species diversity was recorded in July, with all 10 species recorded at this location in this month. This was also the only month that greater horseshoe bat was recorded at this location, with a single call. One call from lesser horseshoe bat was recorded during July, and October, with 3 calls also recorded in September. Barbastelle were only recorded in August with 2 calls noted.

2.2.111 Peak activity was recorded in this location in August with 263 calls. The largest number of these could be attributed to Leisler's bat with 75 calls recorded at this location in this month. The next highest total number of calls was recorded in July with 216 calls with the most calls being associated with common pipistrelle activity. The 104 calls attributed to this species during this month was also peak activity for this species at this location.

Online 1.2c

2.2.112 Ten species were recorded at Online 1.2c between April and October 2017 comprising common pipistrelle with 38.9% of calls, soprano pipistrelle with 16.8%, Leisler's bat 11.1%, *Myotis sp.* 10.9%, serotine 10.5%, *Pipistrellus sp.* 5.7%, brown long-eared bat 3%, noctule 2.5%, barbastelle 0.4% and lesser horseshoe bat 0.1%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.113 The greatest species diversity was recorded in May and September with calls from 9 species, with the only species not recorded, barbastelle and lesser horseshoe respectively. One barbastelle call was recorded in April, with 3 calls also recorded in September. A single call recorded in May was the only time lesser horseshoe bat was recorded at this location.

2.2.114 Peak activity was recorded in June, with 350 calls. The largest number of these came from common pipistrelle, with 149 calls recorded, 51 calls were also recorded from *Myotis sp.,* and 42 calls from soprano pipistrelle. The next highest number of calls was recorded in August with 322 calls.

Online 2.1a

2.2.115 Ten species were recorded at Online 2.1a between June and October 2017 comprising common pipistrelle with 28.4% of all calls, *Myotis sp.* with 16.7%, soprano pipistrelle 11.5%, Leisler's bat 9.2%, *Pipistrellus sp.* 5.5%, serotine 5.5%, brown long-eared bat 2.8%, noctule 1.3%, barbastelle 0.6% and lesser horseshoe bat 0.4%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.116 The greatest species diversity was recorded in June, July and September with 8 species recorded on each of these months. Barbastelle calls were recorded in September, with 7 calls and in October with 2 calls. Lesser horseshoe were only recorded in October with 3 calls.

2.2.117 Peak activity was recoded in July, with 359 calls, 104 of which could be attributed to common pipistrelle, 53 serotine calls were also recorded at this location in July. The next highest number of calls in 1 month was recorded in August with 347 calls, again with common pipistrelle noted as the species with the highest number of calls that month.

Online 2.1b

2.2.118 Nine species were recorded at Online 2.1b between June and October 2017, comprising common pipistrelle with 50.2% of all calls, *Pipistrellus sp.* with 9%, Leisler's bat 7.3%, serotine 6.5%, soprano pipistrelle 4.5%, *Myotis sp.* 3.2%,

noctule 2.8%, brown long-eared bat 1.6% and lesser horseshoe bat 0.6%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.119 The greatest species diversity was recorded in June and October with records of calls from all 9 species. These were also the 2 months that lesser horseshoe were recorded at this location, with 3 and 5 calls recorded respectively.

2.2.120 Peak activity was recorded during July with 712 calls, the majority of which can be attributed to common pipistrelle with 456 calls from this species that month. Common pipistrelle dominated the activity across all months, with the exception of October when calls from this species decreased to 55, and serotine and noctule calls peaked at 58 and 55 calls respectively. The month with the next highest activity level was June with a total of 306 calls.

Online 2.1c

2.2.121 Ten species were recorded at Online 2.1c between April and October 2017, comprising common pipistrelle 52%, *Myotis sp.* 8.6%, serotine 7.1%, soprano pipistrelle 4.1%, brown long-eared bat 2.3%, Leisler's bat 1.8%, lesser horseshoe bat 1.1%, noctule 0.6%, barbastelle 0.5% and Nathusius' pipistrelle 0.02%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.122 The greatest species diversity was recorded in June, with all 10 species. This was the only month that Nathusius' pipistrelle was recorded at this location, with a single call noted in this month. A single barbastelle call was also recorded in June, with activity from this species also noted in May, with a single call, and August, September and October with 16, 6 and 9 calls respectively. Lesser horseshoe was recorded in April, June, July, August, September and October with peak activity levels in August where 18 calls were recorded.

2.2.123 Peak activity across all species was recorded in June, with a total of 1,752 calls, the majority of which could be attributed to common pipistrelle with 1,069 calls recorded. High levels of *Myotis sp.,* and serotine calls were also recorded in June with 158 and 107 respectively. This was the highest number of *Myotis sp.,* calls in 1 month at this location, however 129 serotine calls had been recorded both in April and May here. The month with the second highest activity levels was July with 1,406 calls.

Online 2.2a

2.2.124 Ten species were recorded at Online 2.2a between April and October 2017, comprising common pipistrelle with 54.3% of all calls, *Myotis sp.,* with 18.2%, soprano pipistrelle 16.9%, *Pipistrellus sp.*3.6%, brown long-eared bat 0.8%, barbastelle 0.2%, Leisler's bat 0.1%, serotine 0.1%, noctule 0.06% and lesser

horseshoe 0.06%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.125 The greatest species diversity recorded at this location was seen in May, with calls from all ten 10species. One call was recorded from lesser horseshoe, with this species only recorded at this location in April, with 5 calls, and May. Peak activity levels for barbastelle were also recorded in May, with records of 21 calls. This species was also recorded in April, July and October, with 1 call noted in each of these months and in August with 2 calls.

2.2.126 Peak activity was recorded in July, with 3,978 calls, the majority of which could be attributed to common pipistrelle, with 2,526 calls recorded at this location this month. High levels of Myotis sp. activity was also recorded in July, with 1,129 calls. The month with the second highest activity levels was May, with 2,055 calls, 1,000 of which could be attributed to common pipistrelle and 795 to soprano pipistrelle, the highest number of calls for this species at this location.

Online 2.2b

2.2.127 Ten species were recorded at Online 2.2b between June and October 2017, comprising common pipistrelle with 68.3% of all calls, soprano pipistrelle with 12.4%, serotine 2.8%, *Myotis sp.* 2.8%, Leisler's bat 2.3%, *Pipistrellus sp.* 1.2%, noctule 0.9%. brown long-eared bat 0.9%, lesser horseshoe bat 0.2% and barbastelle 0.03%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.128 The greatest species diversity was recorded in June, with calls from all 10 species recorded at this location. One barbastelle call was recorded at this location, which was picked up in June. Five lesser horseshoe calls were also recorded in June, with the only other activity from this species recorded as a single call in July.

2.2.129 Peak activity was recorded in June, with a total of 1,632 calls, the majority of which were associated with common pipistrelle, with 1,206 calls. Serotine activity at this location also peaked in June, with 52 calls recorded. August recorded the next highest activity levels with 990 calls, the majority of which could be attributed to common pipistrelle activity.

Online 2.2c

2.2.130 Ten species were recorded at Online 2.2 between April and October 2017, comprising soprano pipistrelle with 53.3% of all calls, common pipistrelle with 12.7% of calls, Leisler's bat 8.1%, noctule 3.8%, *Myotis sp.* 3.4%, serotine 3.3%, *Pipistrellus sp.* 1.5%, brown long-wared bat 0.7%. barbastelle 0.4% and lesser horseshoe bat 0.3%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.131 The greatest species diversity was recorded in May, June and October, with all 10 species recorded. Barbastelle were recorded in April, May, June, August and October, with a peak number of 12 calls recorded in August. Lesser horseshoe were also recorded in these 4 months with peak activity recorded in October with 6 calls.

2.2.132 Peak activity was recorded in June, with a total of 1,530 calls, the majority of which were associated with soprano pipistrelle activity, recording 969 calls at this location this month, which was also the peak number of calls for this species in this location, followed by October with 837 calls. The second highest activity levels were recorded in October with a total of 1,336 calls recorded.

Offline 1a

2.2.133 Ten species were recorded at Offline 1a between April and October 2017, which comprised common pipistrelle with 26.8% of all calls, Leisler's bat with 21.1%, *Myotis sp.* 19.3%, serotine 5.5%, soprano pipistrelle 5.2%, *Pipistrellus sp.* 4.5%, noctule 3.2%, brown long-eared bat 2.4%, barbastelle 0.1 and lesser horseshoe bat 0.03%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.134 The greatest species diversity was recorded in May with calls identified from 9 of these species. The only species not recorded in May was lesser horseshoe bat which was only recorded in September with a single call. Barbastelle was only recorded in May with a total of 4 calls identified.

2.2.135 Peak activity was recorded in October with a total of 1,078 calls, the largest number of which could be attributed to common pipistrelle activity with 562 calls recorded. This was also the largest number of calls recorded for this species at this location. High levels of *Myotis sp.* activity was also recorded in October, with 214 calls identified as belonging to *Myotis sp.* However, this was not the highest number of calls recorded at this location for *Myotis sp.*, with 269 recorded in July. The second highest levels of activity were recorded in May, with a total of 1,010 calls, with the majority of these calls being associated with Leisler's activity with 582 calls recorded.

Offline 1b

2.2.136 Ten species were identified at Offline 1b between April and October 2017, comprising Leisler's bat with 21.2% of all calls, *Pipistrellus sp.* with 16.6%, serotine 12.6%, common pipistrelle 12.3%, soprano pipistrelle 7.6%, noctule 2.8%, barbastelle 1.7%, brown long-eared bat 0.9%, *Myotis sp.* 0.9%, lesser horseshoe bat 0.06% and Nathusius' pipistrelle 0.04%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.137 The greatest species diversity was recorded in October, where all species other than Nathusius' pipistrelle were recorded. Lesser horseshoe bat was recorded in October, with a single call noted, in addition to April with 2 calls. Nathusius' pipistrelle was only recorded in June, with 2 calls noted.

2.2.138 Peak activity was recorded in May, with 1,472 calls recorded, the highest number of which were assigned to *Pipistrellus sp.,* with 453 calls. The second highest number of calls in May were associated with activity of Leisler's bat, with 452 calls recorded. The second highest activity level was recorded in October, with 1,214 calls, the highest number of which were associated with Leisler's bat activity, with 328 calls for this species in this month, at this location.

Offline 1c

2.2.139 Ten species were identified at Offline 1c between April and October 2017, comprising common pipistrelle with 32.9% of calls, *Pipistrellus sp.* with 14%, serotine 9.5%, Leisler's bat 7.8%, soprano pipistrelle 5.9%, noctule 4.2%, *Myotis sp.* 1%, barbastelle 0.8%, brown long-eared bat 0.7% and lesser horseshoe 0.5%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.140 The greatest species diversity was recorded in May, with calls from all 10 species recorded. Barbastelle was recorded in May, August, September and October with 1, 8, 18 and 5 calls respectively. Lesser horseshoe bat was recorded in April, May, July and September with a peak of 6 calls in July.

2.2.141 Peak activity was recorded in August with 1,174 calls, the majority of which could be attributed to common pipistrelle with 632 calls recorded. May recorded the second highest levels of activity with a total of 694 calls, with the largest number of calls assigned to *Pipistrelle sp.* recorded on 177 occasions. Common pipistrelle was the second most abundant number of calls, with 117 calls recorded in May.

Offline 4a

2.2.142 Ten species were identified at Offline 4a between April and October 2017, comprising common pipistrelle with 30% of all calls, Leisler's bat with 14.4%, soprano pipistrelle 13.5%, *Pipistrellus sp.* 13%, *Myotis sp.* 13%, noctule 2.5%, serotine 2.1%, brown long-eared bat 1.1%, lesser horseshoe bat 0.4% and barbastelle 0.3%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.143 All 10 species were recorded at this location in April, May, June and September. Lesser horseshoe activity peaked at 7 calls in June. Barbastelle was recorded at this location in April, May, June, July and September, with a peak of 5 calls in May.

2.2.144 Peak activity was recorded in August with 1,054 calls, the majority of which can be attributed to common pipistrelle activity with 393 calls noted. High levels of *Myotis sp.* and soprano pipistrelle activity was also recorded this month with 159 and 142 calls respectively. The second highest levels of activity was recorded in May with a total of 948 calls. The largest number of calls in May were associated with common pipistrelle activity with 290 calls recorded, 278 Leisler's bat calls were also recorded in May, the peak call number for this species at this location. High levels of *Myotis sp.,* activity was noted in September with 298 calls, forming the majority of calls recorded across all species that month.

Offline 4b

2.2.145 Ten species were identified at Offline 4b between April and October 2017, comprising common pipistrelle with 40.1% of all calls, soprano pipistrelle with 16.3%, *Myotis sp.* 9.7%, Leisler's bat 7.1%, *Pipistrelle sp,* 6.9%, brown long-eared bat 4.5%, noctule 1.6%, serotine 1.3%, lesser horseshoe bat 0.8% and barbastelle 0.2%. Other calls were too quiet or distorted to be attributed to a particular species. All 10 of these species were recorded in April and June. Barbastelle was recorded in April, May and June with 1 call per month, and in August with 2 calls. Lesser horseshoe bat was recorded in April, June and July with 5, 4 and 9 calls respectively.

2.2.146 Peak activity was recorded in July, with 936 calls, with 467 of these calls attributed to common pipistrelle activity, the highest number of calls at this location for this species. The highest number of *Myotis sp.* calls were also recorded in July, with 136 calls noted. The second highest activity level was recorded in May, with 356 calls, 120 of which were associated with soprano pipistrelle activity.

Offline 4c

2.2.147 Ten species were identified at Offline 4c between April and October 2017, comprising common pipistrelle with 49.9% of all calls, soprano pipistrelle with 11%, *Myotis sp.* 6.3% *Pipistrellus sp.* 3.6%, noctule 2.8%, Leisler's bat 1.1%, serotine 0.6%, brown long-eared bat 0.2%, lesser horseshoe bat 0.1% and barbastelle 0.02%. Other calls were too quiet or distorted to be attributed to a particular species.

2.2.148 The greatest species diversity was recorded in April, with 9 species recorded. The only species not recorded in April was lesser horseshoe bat, which was only recorded in October, with 5 calls noted. Barbastelle were recorded once at this location, with a single call noted in April.

2.2.149 Peak activity was recorded in July, with 2,044 calls, 1,390 of which could be attributed to common pipistrelle activity, this was also the highest number of

calls recorded for this species at this location. The second highest level of activity was recorded in October with 825 calls, 380 of which were associated with common pipistrelle. High levels of *Myotis sp.,* activity was recorded in September, with 98 calls recorded.

Survey constraints

2.2.150 Static detectors were deployed as close to the same point each month. However, where suitable features for deployment were altered or were no longer present, for example, where vegetation grown through the summer starts to block microphones or where suitable trees or branches were damaged so detectors could no longer be deployed securely in this place, detectors were deployed as close to the original point as possible. Although this altered the position of the detectors, bats using the same flight lines should still have been picked up month to month, so this is not thought to have had a significant impact on the assessment.

2.2.151 On occasion detectors deployed were noted to have malfunctioned, resulting in 1 month's worth of data becoming corrupt. Although this means information on bat activity at a certain location may have been lost for 1 month, the number of transect surveys adjacent to, and number of static detector deployments at each location across 2017 has been assessed as providing a sufficient amount of data to make a robust assessment in terms of bat activity. Therefore, static detector malfunctions have not been assessed as having a significant impact on the assessment.

2.2.152 Due to the nature of static bat detectors, some calls which are recorded can be identified as belonging to bats, but the species cannot be robustly confirmed due to the call being faint (with bats further from the detector) or distorted due to recording error. This is not thought to have had a significant impact on the assessment as calls which could be confirmed as belonging to bats, but not attributed to a particular species have been included in the total number of calls reported and used in the assessment.

Crossing point surveys

2.2.153 Ten bat species were recorded during the crossing point surveys undertaken between July and October 2017 using hedgerows and treelines for commuting purposes. These comprised:

- Barbastelle
- Brown long-eared bat
- Common pipistrelle
- Leisler's bat
- Lesser horseshoe bat

- Noctule
- *Myotis sp.*
- *Pipistrellus sp*
- Serotine
- Soprano pipistrelle

2.2.154 A summary of bat activity at each crossing point is provided below. With full details from each survey shown in Table F.13 and Table F.14 in appendix F.

Crossing point 1

2.2.155 Crossing point 1 was located along Eastmead Lane, approximately 95 metres north of the existing A303 at the intersection of a field boundary hedgerow running east to west. Over the course of surveys at this location 9 species were recorded using the hedgerows running along Eastmead land and leading from this to the west. These comprised barbastelle, brown long-eared bat, common pipistrelle, Leisler's bat, noctule, *Myotis sp.*, *Pipistrellus sp.* serotine and soprano pipistrelle. High levels of activity were recorded in mid-July 2017 and at the end of August, with peak counts of 44 common pipistrelle passes and 31 noctules passes in mid-July and 87 soprano pipistrelle calls at the end of August.

2.2.156 Although foraging activity around the hedgerow contributed to a large proportion of these calls during the survey at the end of August, brown long-eared bat, common pipistrelle, *Myotis sp.* and soprano pipistrelle were all recorded commuting along the hedgerow and that those connected to it. With the highest number of observations using the hedgerow on this survey coming from soprano pipistrelle, noted 22 times. Common pipistrelle were recorded using the hedgerow 4 times and brown long-eared bat twice and *Myotis sp.* both once.

2.2.157 Noctule bat was also recorded using the hedgerow, with 6 passes in July in addition to Leisler's bat crossing the hedgerow twice. Serotine was recorded the most in September, noted using the hedgerow twice.

2.2.158 Two suspected barbastelle bat calls were also recorded during the August surveys, with this the only barbastelle activity recorded across any crossing point surveys in 2017.

Crossing point 2

2.2.159 Crossing point 2 was located along the track south of Downhead Manor Farm, and north-east of the Camel Cross junction, approximately 95 metres north of the existing A303. Activity recorded during the surveys in July and August 2017 was limited to a single brown long-eared bat call in July and 3 common pipistrelle calls in August. Due to this limited activity, this location did not meet the parameters required to continue surveying pass two initial surveys.

Crossing point 3

2.2.160 Crossing point 3 was located in West Camel Hill, along a tree lined track south of Slate Lane and approximately 140 metres north of the existing A303. Over the course of the surveys at this crossing point, 8 species of bat were recorded. These comprised brown long-eared bat, common pipistrelle, Leisler's bat, lesser horseshoe bat, noctule, *Mytois sp*, serotine and soprano pipistrelle. The highest number of species were recorded in July, with 7 out of the 8 species noted by surveyors. However, due to a large number of serotine passes recorded in October, peaking at 90 calls, the peak activity at this crossing point was recorded this month. In addition to serotine, four other species were recorded during October.

2.2.161 In addition to activity of serotine peaking in October, this was also the month that the most serotine passes were recorded along the hedgerow with 5 passes. This was also the only month that noctule were recorded using this feature with a single pass. Common pipistrelle use of the hedgerow peaked in mid-September with 5 passes, and soprano pipistrelle in July, also with 5 passes. Brown long-eared bat was recorded using the hedgerow to in June, September and October, with a single pass each month.

Crossing point 4

2.2.162 Crossing point 4 was located along Steart Hill at the entrance of the track that leads to Steart Woods, immediately east of where Slate Lane joins Steart Hill, approximately 220 metres north of the existing A303. Activity recorded during the surveys in July and August 2017 was limited to low levels of brown long-eared bat, common pipistrelle, noctule, *Pipistrellus sp.* and serotine. As a result of this limited activity, this location did not meet the parameters required to continue surveys passed 2 surveys. Lesser horseshoe bat was also recorded during the July survey; however, it was not observed to be flying over or using linear features being assessed as part of this survey.

Crossing point 5

2.2.163 Crossing point 5 was located approximately 230 metres east of crossing point 4 along the lane that leads to Steart Woods and Pen Hill Copse. Here an earth mound vegetated with hedge and trees runs north to south towards the A303 and joins the lane. This survey point was approximately 185 metres north of the existing A303. Over the course of the surveys at this crossing point, 9 species of bat were recorded. These comprised brown long-eared bat, common pipistrelle, Leisler's bat, lesser horseshoe bat, *Mytois sp.*, noctule, *Pipistrellus sp.,* serotine and soprano pipistrelle. The highest number of bat species were recorded in October, with 7 of the 9 species were recorded. This was also the month where peak commuting activity was recorded, with a total of 76 calls recorded. High levels of common pipistrelle activity were recorded over 3 of the

surveys, in July, September and October, with 42, 49 and 48 calls respectively. High levels of soprano pipistrelle activity was also recorded in August with 34 passes noted by surveyors.

2.2.164 Despite high levels of activity adjacent to the tree lined track and hedgerow at this crossing point location, most activity could be attributed to bats flying adjacent to the features, rather than over them. Soprano pipistrelle was noted as using these features for commuting purposes twice in July and August, with *Myotis sp.* see once in July. Lesser horseshoe bat and common pipistrelle were also observed once in September.

2.2.165 However, although low numbers of bats were observed directly using these features, the activity adjacent to and heard but not seen, indicates the importance of these features, with the densely vegetated nature of this area potentially reducing the number of bats seen using it. This has not been assessed as significantly impacting the assessment, with activity during crossing point surveys also taken into account in this case, in addition to observed passes.

Crossing point 6

2.2.166 Crossing point 6 was located approximately 50 metres south of existing A303, along a hedgerow running north to south, south-east of Canegore Corner. Over the course of the surveys at this crossing point, 6 bat species were recorded. These comprised brown long-eared bat, common pipistrelle, *Myotis sp.*, noctule, serotine and soprano pipistrelle. Peak species diversity was recorded in July with only serotine not recorded, and in mid-to late August with only noctule not recorded. Peak activity was also recorded in mid-August with 131 bat passes noted by surveyors. The majority of these could be attributed to high levels of common pipistrelle commuting activity, recorded passing over the crossing point 115 times during the survey. Although *Myotis sp.* and soprano pipistrelle were recorded at the end of August, the second highest activity level was recorded, with 90 passes attributed to soprano pipistrelle activity.

2.2.167 The highest number of common pipistrelle observed using the hedgerow was also recorded in mid-August, with 12 incidences of this species seen flying along the hedgerow. Brown long-eared bat was also recorded using this hedgerow the most in mid-to late August with 2 passes. The highest number of observations of *Myotis sp.* was observed in July, with 6 passes, and soprano pipistrelle in mid-September with 7 recorded observations.

Crossing point 7

2.2.168 Crossing point 7 was located immediately west of Traits Lane, on the eastern tree line forming the tree lined field north of Eyewell House, approximately 100 metres south of the existing A303. Activity recorded during the surveys in July

and August 2017 was limited to low levels of common pipistrelle, Leisler's bat, noctule and soprano pipistrelle, with a total of 2 passes in July and 5 in August. As a result of this limited activity, this location did not meet the parameters required to continue surveys passed the initial two.

Crossing point 8

2.2.169 Crossing point 8 was located approximately 75 metres west of the north-west corner of Pepper Hill Copse, along the hedgerow with trees which connects Pepper Hill Copse with the band of woodland north of Camel Hill Farm, approximately 240 metres north of the existing A303. Over the course of the surveys 8 bat species were recorded along this hedgerow, comprising brown long-eared bat, common pipistrelle, Leisler's bat, *Myotis sp.*, noctule, *Pipistrellus sp.*, serotine and soprano pipistrelle. All 8 of these species were recorded during the survey undertaken in mid-August, which also saw peak activity levels with 170 bat passes noted by surveyors. The majority of these calls could be attributed to common pipistrelle commuting activity, with 127 passes noted for this species during the survey.

2.2.170 High levels of commuting activity were also recorded in the following survey ten days later, however only 6 species were recorded, with no passes attributed to *Myotis sp.* Low levels of activity was recorded in mid-September with 1 soprano pipistrelle and 1 brown-long eared bat pass. However, by the end of September, activity had increased again.

2.2.171 The highest number of bats from a single species was seen in mid-late August with 9 incidences of common pipistrelle observed using this tree lined hedgerow. This was also when the highest number of noctule were recorded using this feature with 2 observed passes. The highest number of observations of lesser horseshoe bat and *Myotis sp.* were recorded in late August, both with 2 recoded passes. The highest number of soprano pipistrelle passes were also recoded survey, with this species observed twice, equalling the number of passes observed in July. Brown long-eared bat was seen using this feature with a single pass in July, and again in mid-late August.

Crossing point 9

2.2.172 Crossing point 9 was located on the south-east corner of Pepper Hill Copse approximately 160 metres north of the existing A303. Activity recorded in July and August 2017 was limited to 7 common pipistrelle passes in July. Although brown long-eared bat, common pipistrelle, *Myotis sp.*, noctule, serotine and soprano pipistrelle were recorded in August, limited activity was recorded from all of these species, with a peak of 15 calls from common pipistrelle.

2.2.173 One single common pipistrelle was observed using this feature in July, and a single soprano pipistrelle was recorded in August. As a result of this limited

activity, this location did not meet the parameters required to continue the surveys passed the initial two.

Crossing point 10

2.2.174 Crossing point 10 was located along the western field boundary of the field immediately west of the woodland at the entrance of Hazlegrove School, approximately 200 metres north of the existing A303. Activity recorded in July and August 2018 was limited to limited activity from brown long-eared bat, common pipistrelle, Leisler's bat and soprano pipistrelle in July and a single soprano pipistrelle call in August. As a result of this limited activity, this location did not meet the parameters required to continue the surveys passed the initial two.

Crossing point 11

2.2.175 Crossing point 11 was located along the western edge of the woodland at the entrance to Hazlegrove School, approximately 150 metres north of the existing A303. Over the course of the surveys 7 bat species were recorded along the edge of the woodland, comprising brown long-eared bat, common pipistrelle, Leisler's bat, *Myotis sp.*, noctule, serotine and soprano pipistrelle. Peak species diversity was recorded in mid-August with all species recorded during the crossing point surveys at the location recorded with the exception of serotine, and at end of August with all species recorded except Leisler's bat. Peak activity was also recorded in mid-August with 61 bat passes recorded across the 6 species recorded. The majority of these calls could be attributed to commuting common pipistrelle. Low levels were recorded in mid-September with a single brown long-eared bat pass and single noctule pass, however, activity increasing again towards the end of September.

2.2.176 Although peak activity was recorded in mid-August, the highest numbers of bats observed using the woodland edge was recorded in July. Seven common pipistrelle passes were observed, with this species the only 1 recorded with more than a single pass on any one survey at this location. In addition to this, single passes from brown long-eared bat, noctule, *Myotis sp.* and noctule were recorded during the same survey. A single soprano pipistrelle pass was also recorded in mid-August and late August.

Crossing point 12

2.2.177 Crossing point 12 was set to be located east of the track leading up to Hazlegrove School along treelines forming the boundaries of fields. However, due to health and safety risks associated with livestock, and the open nature of the land meaning they could not be separated from surveyors in this area, surveys could not be undertaken.

Survey constraints

2.2.178 Twelve locations were identified for crossing point surveys. However, only 11 of these locations could be surveyed, with health and safety issues associated with livestock across the land the survey was located in preventing surveys from being able to be undertaken. Due to the location of the livestock within the land, the land owner was not able to separate or move animals so that they no longer posed a risk to surveyors stood in the same location for a period of time. This is not thought to have had a significant impact on the assessment, with transect routes around this area allowing for surveyors to assess how these linear features were utilised by bats, with surveys able to occur as surveyors could walk around these features, reducing the risk of the livestock to their safety.

Hibernation surveys

2.2.179 Buildings and trees within the survey buffer of the proposed scheme were identified as having the potential to support hibernating bats.

Trees

2.2.180 Eight trees were assessed as having the potential to support hibernating bats. The land parcels that they are located in are provided in Table 3.10 in addition to their tree ID, descriptions of any suitable features and the results of the hibernation surveys.

Table 3.10: Tree hibernation survey results summary

Land parcel	Tree ID	Tree species and features with hibernation potential	Hibernation potential assigned after surveys
ST84283	F001	Common ash with branch cavity.	Negligible – whole cavity was full of slugs with no evidence of bat use.
U00010	F001	Common ash with 15-20cm long branch cavity, callus roll leading to cavity, woodpecker holes and lifted bark.	Low – branch cavity appeared dry, but no evidence of bat use, with cavity by callus roll damp and dirty also with no evidence of bats. No other suitable features for hibernating bats.
WS16934	F001	Pedunculate oak with two branch cavities.	Low – both features were assessed as being too small for hibernating bats. No evidence of bat use was recorded.
	F002	Pedunculate oak with branch cavity.	Low – no evidence of bats, with feature determined to be unsuitable for bats on closer inspection.
	F003	Pedunculate oak with trunk cavity.	Low – cavity had snapped off leaving a very small dry cavity. No evidence of bats.
	F004	Pedunculate oak with woodpecker hole.	Low – woodpecker hole was wet, dirty and full of woodlice, no evidence of bats.
WS49438	F002	Common ash with woodpecker hole.	Negligible – woodpecker hole too shallow for bat to fit into.
WS75681	F001	European beech with woodpecker hole.	Low – cavities of low potential as they are quite exposed, no evidence of bat use. Later

Land parcel	Tree ID	Tree species and features with hibernation potential	Hibernation potential assigned after surveys
			downgraded to negligible due to tree damage removing the potential roosting feature.

2.2.181 Of the 8 trees surveyed, 2 were assessed as having negligible potential to support hibernating bats, and 6 of low potential. With the lack of evidence of roosting bats within 7 of these trees and the unsuitable nature of all features previously identified as having the potential for hibernating bats, it was concluded that these trees could be scoped out of the assessment for hibernating bats. Therefore, a second visit during February 2018 was not required.

2.2.182 The only tree assessed as requiring a second visit in February 2018, was the European beech (F001) at WS75681. As although quite exposed, cavities were dry and large enough for bats. However, when surveyors assessed the tree in February, deadwood covering the cavities had come off of the tree, exposing the cavity completely. Consequently. This tree was downgraded to be of negligible potential for hibernating bats.

Buildings

2.2.183 Fifteen buildings were assessed as having the potential to support hibernating bats as a result of the initial building inspection surveys. The land parcels that they are located on, in addition to their building ID code, description and findings from the initial and follow up surveys undertaken in January and February 2018 are described in Table 3.11.

Table 3.11: Building hibernation survey results summary

Land parcel	Building ID	Building description	Hibernation potential and initial survey findings	Hibernation potential and follow up survey findings	Static detector results
ST84243	F001	Stone built, clay tiled residential two storey property with large loft.	Moderate – large loft area presumed partitioned into three sections. Cobwebs and water tank present. Loft dry and draught free but warm. No evidence of bats observed. Static detector left in loft further determine hibernation potential.	Moderate – felt more draughty than on first visit. Cobwebs still present, but space for bats to move within loft space.	No bats recorded
	F002	Garage with stone sides. No division between hangar and loft space. Completely open inside to rafters.	Low – building in use as a garage with no loft space, with inside open all the way to the rafters. Potentially subject to high levels of disturbance. No evidence of bats observed. Due to lack of suitability for roosting bats a second visit is not required	Not required.	Not required.
ST97213	F001	Two storey detached house with stone walls and clay tiles. Generally, in good condition, approximately 10 years old.	Moderate – large loft area broken into different sections which bats could move between. Still air with no draft, generally clean and cobweb free. Static detector left in loft further determine hibernation potential.	Moderate – conditions within void the same as previous visit, no bats or evidence of bats observed.	No bats recorded
ST106774	F001	Small wooden barn used for storage. No loft area, internals open to roof. Lots of	Low – building in use as a garage with no loft space, very open inside. Temperature likely to fluctuate too much to provide	Not required.	Not required.

Land parcel	Building ID	Building description	Hibernation potential and initial survey findings	Hibernation potential and follow up survey findings	Static detector results
		access points from outside into structure.	stable environment for hibernating bats. In constant use by owners so receives a high level disturbance. No evidence of bat use. Due to lack of suitability for roosting bats a second visit is not required.		
	F002	Residential bungalow in good condition with clay tiles on the roof, and access points into roof space.	Moderate – loft space relatively undisturbed, with multiple spaces for bats to crawl and hand from, cool temperature and humidity from water tank. No evidence of bats. Static detector left in loft further determine hibernation potential.	Low – downgraded to low potential as area felt more draughty, and was more cobwebbed that previous visit. No evidence of hibernating bats.	No bats recorded.
ST125075	F001	Residential property in two distinct parts, approximately 40 years old, but eastern section newer. Western section has windows in the roof, however, eastern section has roof void split with dividing wall with gaps bats could use to move between and crawl spaces at the side of the building.	Moderate – most sections of the loft space were cobwebbed and dirty, however one section appeared cleaner with no cobwebs present. No evidence of hibernating bats identified. Static detector left in loft further determine hibernation potential.	No change condition of any of the loft spaces. No evidence of hibernating bats identified.	No bats recorded.
ST152449	F001	Single storey building in use as a restaurant,	Low – limited suitable access to the building for bats, with	Not required.	Not required.

Land parcel	Building ID	Building description	Hibernation potential and initial survey findings	Hibernation potential and follow up survey findings	Static detector results
		in good maintain condition, approximately 50 years old.	no loft space. No evidence of bat use. Due to lack of suitability for roosting bats a second visit is not required.		
WS24574	F001	Concrete tiled, stone built, well maintained two storey house with one storey extension.	High – land owner denied access to internal areas of the property, so hibernation potential assessed from external building assessment only.	Could not be undertaken as land owner denied access to internal areas of the property.	Access denied so static recorded could not be installed.
WS33009	F001	Rendered two storey residential building.	Low – well sealed building with no access points to any loft space. No evidence of hibernating bats. Due to lack of suitability for roosting bats a second visit is not required.	Not required.	Not required.
WS42422	F001	Two storey stone built residential property next to the A303.	Low – slight draft and cool temperature with lots of crevices for bats and access for bats between all parts of the loft. No evidence of hibernating bats identified.	Although classified as of low potential, a second visit was requested. However, the land owner refused access.	Land owner refused permission to leave a static detector in the loft space.
WS42423	F001	Stone and brick built bakery building. Two storeys in a poor state of repair.	Negligible – high levels of disturbance and heavily leaking roof. No evidence of hibernating bats. Due to lack of suitability for roosting bats a second visit is not required.	Not required.	Not required.
	F002	Bakery outbuilding containing flour store and kitchen.	Negligible – no loft area, with building well sealed with expanding foam plugging gaps. No obvious point at which a bat could enter the	Not required.	Not required.

Land parcel	Building ID	Building description	Hibernation potential and initial survey findings	Hibernation potential and follow up survey findings	Static detector results
			building, which is subject to high levels of disturbance. No evidence of hibernating bats. Due to lack of suitability for roosting bats a second visit is not required.		
WS44543	F001	Rendered two storey bed and breakfast.	Low – no loft space with owners extending it this area. Well-sealed building with no access points for bats. No evidence of hibernating bats. Due to lack of suitability for roosting bats a second visit is not required.	Not required.	Not required.
WS57193	F001	Main residential building in group of buildings. Stone built with clay tiles, and two storeys high.	Moderate – roof void clear, with opportunities for bats to move around, but feels warm over the main part of the house, with loft space over the kitchen cooler but with no obvious access points for bats. Both areas also noted for suitability for summer roosts.	No change condition of any of the loft spaces. No evidence of hibernating bats identified.	Detector in loft space above kitchen – no bats recorded Detector over main part of house – *Myotis sp.* calls with characteristics of whiskered bat recorded.
	F002	Small brick lean to shed	Low – door always open, providing access, however lots of cobwebs inside and dirty, with no obvious hibernation roosting opportunity.	Not required.	Not required.

2.2.184 Of the 15 buildings surveyed, 2 were assessed as being of negative potential and 6 for low potential for hibernating bats. With lack of evidence of roosting bats and the unsuitable nature of voids within these buildings, it was concluded that these buildings could be scoped out of the assessment for hibernating bats. Therefore, a second visit during February 2018 was not required.

2.2.185 Six buildings were recorded as being of moderate potential to support hibernating bats during the first hibernation visit, with ST106774 F002 downgraded to low potential after the second visit. Static bat detectors were left in roof voids in all but 1 of these buildings, with permission not granted for WS24574.

2.2.186 Bat activity was recorded on 1 of the static bat detectors within the loft space over the main house of building F001 at WS57193. Ten *Myotis sp.* calls with the characteristics of whiskered bat were recorded on the 20 January 2018 between 20:59 and 21:02. However, no other evidence of hibernating bats were identified during the hibernation inspections, and droppings within the loft void were assessed as being old brown long-eared bat droppings, mostly likely from the summer roost within this building.

2.2.187 One building was also recorded as being of high potential to support hibernating bats. The property at WS24574 could only be externally inspected, as the land owner refused access to the internal areas of the building. The assessment was therefore limited to information that could be obtained on the buildings structure from the outside. With a lack of information on the suitability of any roof or other voids within the property, a precautionary approach has been taken, and the suitability of this building for hibernating bats based on the external assessment only.

2.2.188 Ten *Myotis* sp. calls with the characteristics of whiskered bat were recorded in building F001 at WS57193 within a 3 minute period on 1 night, no other calls were recorded. Due to the low number of calls over a short period of time, with no other activity or evidence of bats within this void recorded, it is unlikely that that this indicates the presence of a hibernating bat. Bats are known to start coming out of hibernation towards the end of January and into February on warmer nights to forage. The temperature on 20 January 2018 was recorded peaking at 11°C with an average recording at 8°C. It is therefore probable that these calls came from a bat which had broken hibernation that night to forage.

2.2.189 No evidence of hibernating bats was identified in any of the 15 buildings initially identified as having the potential to support hibernating bats. Therefore, there have been no confirmed hibernation roosts.

Incidental results – evidence of summer roosts

2.2.190 During hibernation survey visits made to some properties, bat droppings were identified. However, it was assessed by surveyors that as all droppings identified were not fresh, and appeared to be at least 4 or 5 months old, these were as a result of hibernating bats, using the buildings in the winter period, rather that they were from summer roosts. Dropping samples were taken and sent for analysis with roosts identified in the following buildings:

- ST106774 F002 – brown long-eared bat
- ST125075 F001 – brown long-eared bat
- WS57193 F001 – brown long-eared bat and serotine
- WS57193 F003 – whiskered bat

2.2.191 Hibernation surveys of WS57193 F003 were not undertaken as this building was not classed as being suitable for hibernating bats. However, during and internal inspection undertaken at the same time as the hibernation surveys on this land parcel, droppings were noted, so collected for analysis.

Survey constraints

2.2.192 As a result of lack of access to some buildings, some surveys have not been able to be completed, or had to be programmed within a smaller time frame. Buildings with access constraints associated with their assessment for hibernating bats comprise:

- No access was available in January to ST97213 F001 as the land owner could not be contacted. However, contact was later made and 2 visits were undertaken and a static recorded left in place. Both of these survey visits were undertaken in February 2018.
- WS42422 F001 could not be accessed in January 2018 as the owner was out of the country. However, 2 visits were undertaken in February to assess this building for its potential to be utilised by hibernating bats. Permission was not granted to leave a static bat recorder.
- The land owner denied access to the internal areas of WS24574 F001. Therefore, the building could only be assessed from external viewpoints.

2.2.193 These access constraints are not thought to have had a significant impact on the assessment, with a precautionary approach taken to assessing buildings with limited access. This has used all available information to draw conclusions on the suitability of buildings for hibernating bats, and fed through to the assessment of potential impacts of the scheme on hibernating bats.

Landscape scale transects

2.2.194 Landscape scale transects are currently programmed between June and August of 2018. Therefore, at the time of writing, no data has been collected for these surveys. The primary purpose of these landscape scale transects is to provide a robust, repeatable set of baseline data for bat activity within the vicinity of the road prior to the construction of the scheme. This data is not required for the assessment of the scheme as this has been informed by the other detailed bat surveys outlined above. As agreed with Natural England in 2017, these landscape scale transects will be undertaken after the submission of the DCO application. They would then be repeated 5 years post construction to monitor any changes in bat use and behaviour.

2.3 Discussion and valuation

2.3.1 Confirmed and potential roosts, in addition to important foraging areas and commuting routes have been identified with the survey area during the 2017 surveys.

2.3.2 Descriptions of these are provided in the following sections, alongside the valuation of these features in terms of their importance for the conservation status of bats.

Roosts

2.3.3 A total of 30 bat roosts, comprising 9 trees and 21 buildings were identified during the assessment of the survey area for the scheme, these are displayed in Figure E.7 in appendix E. These comprised of a mixture of active and inactive summer roosts.

2.3.4 The largest roost was the *Myotis sp.* roost within tree F008 in land parcel WS75059 recorded on the 13 July 2017. No other evidence of roosting bats was identified during the other 2 surveys undertaken on the 25 May 2017 and the 1 August 2017, and although multiple features with BRP were noted during the climb and inspect survey on the 6 March 2017 no evidence of roosting bats was recorded. Due to the number of bats, and the timing of their recording, this is likely to have been a maternity roost. Building F003 on land parcel WS57193 was also recorded to have whiskered bat droppings in it, although no emergence or return activity was recorded, and is approximately 150 metres south of this tree roost.

2.3.5 All other recorded roosts belonged to a small number of bats. The largest building roost was identified building F001 on land parcel WS75681 and comprised approximately 3 common pipistrelle. Tree F004 on land parcel ST128002 was the largest tree roost after the suspected maternity roost described above, with records of 6 brown long-eared bat and 6 *Myotis sp.* It is

therefore suspected that all other roosts are small transitional roosts or day roosts used by common bat species.

2.3.6 A dead lesser horseshoe specimen was found by surveyors in building F001 on land parcel ST147000. However, it was noted that this individual had likely been dead for a while, as it was completely desiccated. In addition to this, no droppings from this species were evident and no emergence or re-entry activity was identified. It is therefore unlikely that this roost has been used by this species recently, and is now being used by common pipistrelle and serotine as shown in Table 3.12.

2.3.7 No hibernation roosts were identified during the 2018 surveys within the survey area. However, 1 building, assessed as being of high potential to support hibernating bats had access denied for internal inspections to further determine the potential for this building to be in use by hibernating bats.

2.3.8 A summary of the roosts identified within the survey area, how they were identified, the number of bats using them and their potential roost type and status are described in Table 3.12.

Table 3.12: Summary of all roosts recorded within the survey area and their valuation

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
ST31926	Building F001 (ST 59974 25783)	Droppings	Brown long-eared bat	Dropping numbers indicate low numbers	Summer – day roost	Inactive – no emergence or re-entry activity recorded. But may have been used within previous year.	Although currently inactive, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
ST84283	Building F001 (ST 58958 25612)	Droppings	Brown long-eared bat	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded.	Although the number of bats using this building is low, evidence of four species has been recorded. Brown long-eared bat and soprano pipistrelle are listed as species of principal importance. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Confirmed emergence	Common pipistrelle	2	Summer - day roost	Active	
		Droppings and potential emergence	Serotine	One record of potential emergence	Summer - day roost	Active	
		Confirmed return	Soprano pipistrelle	1	Summer - day roost	Active	
	Building F002 (ST 58946 25616)	Confirmed emergence	*Pipistrellus sp*.	1	Summer - day roost	Active	Soprano pipistrelle are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
		Confirmed return	Soprano pipistrelle	1	Summer - day roost	Active	
ST97213	Building F001 (ST 58713 25570)	Droppings	Brown long-eared bat	1	Summer - day roost	Inactive - no emergence or re-entry	Although currently inactive, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future. Brown long-eared bat are listed as a species of

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
						activity recorded.	principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
ST103525	Building F006 (ST 60217 26304)	Confirmed return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat throughout the UK. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
	Building F007 (ST 60234 26286)	Droppings	*Pipistrellus sp.*	Dropping numbers indicate low numbers	Summer - day roost	Inactive - no emergence or re-entry activity recorded.	As it could not be determined if this roost belonged to soprano pipistrelle or common pipistrelle, a precautionary approach has been taken, and the species of higher conservation value considered. Although currently inactive this building is still suitable for bat use, and may come back into use as a roost in the future. This roost has therefore been classed as being of **medium conservation value.**
ST106774	Building F002 (ST 57117 25259)	Dropping	Brown long-eared bat	Unknown from droppings	Summer – day roost	Active	Two species of bat have been recorded using this building. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost and the species present within the building it is classed as of **medium conservation value.**
		Droppings	Common pipistrelle	Unknown from droppings	Summer – day roost	Active	
ST125075	Building F001 (ST 58610 25604)	Droppings	Brown long-eared bat	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species.	Although currently inactive, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
		Confirmed return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
ST126282	Building F001 (ST 60238 26323)	Droppings	Brown long-eared bat	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species.	Although the number of bats using this building is likely to be low, evidence of three species has been recorded. Brown long-eared bat are listed as species of principal importance, and although currently inactive for this species, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future by brown-long eared bat. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Droppings	Serotine	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species.	
		Confirmed emergence	Common pipistrelle	1	Summer - day roost	Active	
ST128002	Tree F003 (ST 58582 25550)	Confirmed return	Soprano pipistrelle	1	Summer - day roost	Active	Soprano pipistrelle are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
	Tree F004 (ST 59319 26143)	Confirmed emergence	*Myotis sp.*	6	Summer - day roost	Active	Although the number of bats using this building is low, evidence of three species has been recorded. Brown long-eared bat and soprano pipistrelle are listed as species of principal
		Confirmed return	Soprano pipistrelle	1	Summer - day roost	Active	

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
		Confirmed emergence	Brown long-eared bat	6	Summer - day roost	Active	importance. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
ST139171	Building F001 (ST 60042 25942)	Confirmed emergence	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
ST147000	Building F001 (ST 57737 25602)	Confirmed return	Common pipistrelle	1	Summer -day roost	Active	Although this roost is not currently thought to be used by lesser horseshoe, it is still suitable for use by roosting bats. As a result of the potential for this roost to support this Annex II species, this roost is of **high conservation value**.
		Dead specimen	Lesser horseshoe	1	Unknown	Inactive - no emergence or re-entry activity or droppings recorded from this species.	
		Droppings	Serotine	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species.	
ST153085	Tree F011 (ST 59694 26225)	Confirmed emergence and return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
							recorded using this roost, it is classed as being of **low conservation value**.
	Tree F032 (ST 59927 26404)	Potential emergence	Brown long-eared bat	1	Potential summer - day roost	Potentially active	Although the number of bats using this building is low, evidence of four species has been recorded. Brown long-eared bat, noctule and soprano pipistrelle are listed as species of principal importance. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Potential emergence	Noctule	1	Potential summer - day roost	Potentially active	
		Potential return	Serotine	1	Potential summer - day roost	Potentially active	
		Confirmed emergence and return	Soprano pipistrelle	1	Summer - day roost	Active	
	Tree F039 (ST 59889 26170)	Confirmed emergence	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
WS4856	Tree F003 (ST 60073 26043)	Confirmed emergence and return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
WS25151	Building F001 (ST 58743 25680)	Confirmed emergence and potential return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
WS26353	Tree F002	Confirmed	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However,

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
	(ST 59162 25477)						this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
WS56543	Building F001 (ST 57635 25283)	Droppings	Brown long-eared	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species.	Although currently inactive, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
WS57193	Building F001 (ST58737 25301)	Confirmed emergence and return	Common pipistrelle	1	Summer - day roost	Active	Although the number of bats using this building is likely to be low, evidence of four species has been recorded. Brown long-eared bat are listed as species of principal importance, and although currently inactive for this species, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future by brown-long eared bat. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Droppings	Brown long-eared bat	Unknown from droppings	Summer - day roost	Active	
		Droppings	Serotine	Unknown from droppings	Summer - day roost	Active	
		Sound recordings from hibernation survey	*Myotis sp.* with characteristic of whiskered	Unknown but likely single individual due to low numbers of calls	Transitional	Active	
	Building F002 (ST 58753 25305)	Confirmed return	Common pipistrelle	1	Summer - day roost	Active	Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
							recorded using this roost, it is classed as being of **low conservation value**.
	Building F003 (ST 58712 25308)	Droppings	Whiskered bat	Unknown from droppings	Summer - day roost	Active	Whiskered bat are listed on the Somerset Bats SAP as being locally distributed and widespread. Considering this and the likely low number of bat using this roost, it is classed as being of **low conservation value.**
WS64408	Building F001 (ST 55658 24989)	Droppings	*Pipistrellus sp.*	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded from this species. Note - droppings too old for collection/	Although currently inactive, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future. As it could not be determined if this roost belonged to soprano pipistrelle or common pipistrelle, a precautionary approach has been taken, and the species of higher conservation value considered. Although currently inactive this building is still suitable for bat use, and may come back into use as a roost in the future. This roost has therefore been classed as being of **medium conservation value.**
WS75059	Tree F008 (ST 58654 25450)	Confirmed	*Myotis sp.*	38	Potential summer - maternity	Active	The number of bats recorded swarming returning to this roost, and the time of year that this was recorded would indicate that this has the potential to be a maternity roost. Considering this classification and the number of bats using this single tree, the roost is considered as being of **high conservation value**.
WS75681	Building F001 (ST 58771 25645)	Droppings	Brown long-eared	Unknown from droppings	Summer - day roost	Inactive - no emergence or re-entry activity recorded	Brown long-eared bat are listed as species of principal importance, and although currently inactive for this species, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future by

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
						from this species.	brown-long eared bat. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Confirmed return	Common pipistrelle	1	Summer - day roost	Active	
	Building F002 (ST 58799 25689)	Potential emergence	Bat sp.	1	Potential summer - day roost	Potentially active	A bat was observed potentially emerging from this building, without echolocating. Therefore, it was not possible to assign a species to this record. However, as there are roosts belonging to brown long-eared bat and common pipistrelle in the adjacent buildings, it is likely that this emergence record was from one of these species. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**
	Building F005 (ST 25771 25645)	Droppings and confirmed emergence	Brown long-eared	1	Summer - day roost	Active	Brown long-eared bat are listed as species of principal importance, and although currently inactive for this species, this building is still suitable for roosting bats. It therefore may come back into use as a roost in the future by brown-long eared bat. Considering the number of species recorded and the numbers they are present in this roost is classed of **medium conservation value**.
		Confirmed emergence and return	Common pipistrelle	3	Summer - day roost	Active	
U00016	Building F001 (ST 57633 25254)	Potential emergence	Bat sp.	1	Potential summer - day roost	Potentially active	A bat was observed potentially emerging from this building, without echolocating. Therefore, it was not possible to assign a species to this record. However, as there are roosts belonging to common pipistrelle in the adjacent buildings, it is likely that this emergence record was from one of these species.

Land parcel	Feature ID and grid reference	Method of identification	Species	Approximate number of bats recorded	Roost type	Status at emergence and re-entry surveys	Conservation value
							Common pipistrelle are a common species of bat. widespread throughout the UK. However, this species is listed on the Somerset BAP. Considering this and the low number of bats recorded using this roost, it is classed as being of **low conservation value**.
U00029-43	Tree F018 (ST 58014 25628)	Droppings	Potential brown long-eared bat (droppings too old for successful DNA analysis)	Unknown	Summer - day roost	Inactive – no emergence or re-entry activity recorded.	Although currently inactive, this tree is still suitable for roosting bats. It therefore may come back into use as a roost in the future. Brown long-eared bat are listed as a species of principal importance under Section 41 of the NERC Act. As a result of this and the likely low number of bats support by this roost it is classed as of **medium conservation value.**

2.3.9 Although noted as inactive, due to the lack of emergence or re-entry behaviour recorded during 2017, building F007 at ST103252 lies immediately south of F006, and north of F001, both confirmed to be used by a single common pipistrelle. Therefore, there is the potential for F007 to be used by common pipistrelle so occasionally that this would not have been picked up by the emergence or re-entry surveys.

2.3.10 Droppings noted by surveyors in building F001 at WS64408 were noted to be old specimens and so degraded that although species could be identified they were too degraded to collect. This potentially indicates that the roost has not been in use for some time.

Commuting and foraging activity

2.3.11 Information on how bats are using the survey area for commuting and foraging purposes obtained from transect surveys, static bat detector recordings and crossing point surveys, has been used to assess the value of habitats and linear features which may be impacted by the scheme. Crossing point surveys also provided additional data to assess the impacts of hedgerow severance along the scheme, focusing on hedgerows and linear features most likely to be impacted by the scheme.

2.3.12 Due to the size of the scheme, and the extent of hedgerows and other linear features within the survey area, habitats and hedgerow valuation has been split. This has allowed for areas of particular note, such as those supporting Annex II species to be highlighted to ensure for appropriate mitigation and enhancements to reduce the potential for the scheme to have an overall negative impact on bats.

Activity south of the existing A303

2.3.13 Activity levels to the south of the existing A303 were notably lower than those to the north of the road, particularly to the west of Camel Cross. Although rarer bat species were recorded on occasion, activity was dominated by common species of bat. Static bat recorders placed along bands of trees immediately south-west of Camel Cross recorded barbastelle and lesser horseshoe bat, however calls totalled a single barbastelle call in September and 2 lesser horseshoe bat calls in August.

2.3.14 Hedgerow and foraging habitats east of Camel Cross were mainly utilised by common species, with occasional use by rarer species. However, surveys did highlight specific areas with particularly high levels of commuting and foraging activity in comparison to the rest of the area south of the existing A303. These comprised:

- the northern extent of the lane running from Sunnydene Farm to Hawk House
- the public footpath running north-west to south-east, along the eastern boundary of Orchard Park Caravan Park, West Camel
- the 3 central hedgerows between Howell Hill and Trait's Lane running south, perpendicular to the existing A303
- the raised tree planted bund running east to west, north of Eyewell House, also where the potential Myotis sp. maternity roost was identified
- along Gaston Lane from the junction with the existing A303, to Ridge Copse
- immediately West of the A359 towards the Sparkford roundabout, and in the field west of this, immediately north of Woodstock House

2.3.15 As a result of the species diversity and levels of activity across this part of the survey area, foraging and commuting habitats south of the existing A303 have been valued as of medium conservation value, with the exception of the area detailed below.

2.3.16 The hedgerow running south from the A303, 220 metres east from Congore Corner has been noted for the activity levels and species diversity of Annex II bat species. Barbastelle, greater horseshoe and lesser horseshoe have all been recorded along this hedgerow and up to the existing A303. A peak of 140 barbastelle calls were recorded along this hedgerow during static detector surveys in October 2017, with 93 also recorded in September. A single greater horseshoe pass was also recorded here in September, with another pass recorded along the connecting hedgerow running immediately south of the existing A303 in July, potentially indicating a commuting route. Lesser horseshoe bat were also recorded along this hedgerow in July, August, September and October 2017.

2.3.17 The hedgerow appears to line up with a soil bund vegetated with trees and hedge planting to the north of the existing A303, leading to Steart Wood. Barbastelle and lesser horseshoe bat calls have also been recorded at the northern end of this soil bund. This would suggest that these 2 linear features were connected prior to the existing A303 being built, forming a historic commuting route, used by Annex II species which are potentially crossing the existing A303. Bats were also recorded on crossing point surveys commuting north and south along this hedgerow, linking the wider environment to the hedgerows running east and west adjacent to the existing A303, in addition to observations of bats flying along the hedgerow and then crossing the road. The majority of this activity was attributed to common pipistrelle, *Mytois sp.,* and soprano pipistrelle during the crossing point surveys, with brown long-eared bat., noctule and serotine also recorded but not seen. This hedgerow has therefore been classified as being of high conservation value, due to its

importance to three species of Annex II species, connecting habitats north and south of the existing road.

Activity north of the existing A303

2.3.18 Activity levels to the north of the exiting A303 were notably higher than those to the south of the road. However, 3 areas were noted as recording noticeably less bat activity that the other areas assessed north of the existing A303. Limited commuting and foraging activity was noted in Downhead, in the areas adjacent to the A303, and along the section of Plowage Lane north of the A303, in addition to along the more exposed eastern section of Slate Lane. Low levels of activity were also recorded across the agricultural land and quarry between Pen Hill Copse and Camel Hill Farm.

2.3.19 Activity of both foraging and commuting bats was dominated by common species, with the occasional record of rarer species of bats. Barbastelle were recorded during transect surveys, with calls mainly associated with the areas around Annis Hill Wood and the track between Steart Hill and Steart Wood and the hedgerow running north to south approximately 120 metres east of Pepper Hill Copse. Nathusius' pipistrelle was also recorded in the area around Annis Hill Wood, and along Slate Lane. Lesser horseshoe was the most widely distributed rare bat species recorded north of the existing A303, with records in the area surrounding Annis Hill Wood, Downhead, Slate Lane, the track between Steart Hill and Steart Wood, in the south-east corner of Pepper Hill Copse and along the north of the field immediately west of the woodland at the entrance of Hazlegrove School.

2.3.20 Although hedgerow and foraging habitats north of the existing A303 were dominated by common species of bat, surveys did highlight specific areas with particularly high levels of commuting and foraging activity, in comparison to the rest of the survey area. These comprised:

- the hedgerow extending from the south-east of Annis Hill Wood, and running east to west towards Downhead
- the western section of Slate Lane, ending where the tree cover is reduced and the lane becomes bound by hedgerow
- the track running from Steart Hill to the south-west corner of Steart Wood
- the track running north to south from Rewber Brake to Camel Hill House
- the hedgerow running east to west, extending from the south-east corner of Pepper Hill Copse, and the hedgerow running north to south that this joins
- the field to the east of the entrance of Hazlegrove School, and the boundaries of this field along the woodland edge to the west and the band of trees following the track to the east

2.3.21 As a result of the species diversity, and the levels of activity across this part of the survey area, with habitats supporting large numbers of common species and the low number of some rarer species, foraging and commuting habitats north of the current A303 have been valued as of medium conservation value.

2.3.22 Although classified as medium conservation value, it should be noted that the soil bund vegetated with trees and hedge planting and the track leading from Steart Hill to Steart Wood, are of particular importance due to their connectivity to the hedgerow south of the A303 classified as being of high conservation value.

3 Potential impacts

3.1 Construction

3.1.1 The construction works would result in the loss of habitat for bats including those identified within the Somerset bat SAP as being of importance to bats in Somerset. These include:

- Hedgerow and hedgerow trees
- Woodland
- Wood pasture and parkland
- Neutral grassland.

3.1.2 Vegetation clearance and tree and hedgerow removal would have the potential to decrease the area of suitable foraging habitat within the construction boundary, disrupt commuting roots, and impact on bat roosts within trees. Demolition of buildings would also result in the loss of potential roosting features, and confirmed roosts. This would adversely affect bat species through disturbance or injury, which could result in death.

3.1.3 In addition to this, construction works would have the potential to increase current levels of noise, light and vibration, disturbance from which can cause disruption to commuting and foraging patterns, and potentially roost abandonment.

3.1.4 The potential for construction works to have significant impact on confirmed and potential bat roosts and commuting and foraging activity is described in the sections below. The impact on European designated sites for bats, in addition to nationally and regionally designated sites have also been considered.

Designated sites

European designated sites

3.1.5 The potential impact of construction works on bats which may be using European designated sites for bats within 30 kilometres of the survey area has been considered below. A Habitat Regulations Assessment (DCO submission document 6.6 Habitats Regulations Assessment) has also been undertaken for the scheme to assess the likely impacts on these European Designated Sites.

3.1.6 Where bats present within the survey area are also using the sites described below, any significant impact on bats within this area has the potential to impact on the conservation status the SAC's they are associated with.

Bracket's Coppice SAC

3.1.7 The scheme does not fall within the Bracket's Coppice SAC Bat Protection Zone. At approximately 17 kilometres away from this SAC, the scheme also falls outside the standard 1 kilometre CSZ and extended 3 kilometre CSZ, defined by the BCT as being the area required from a roost to sustain the bat population within it. Construction of the scheme would therefore not be likely to have a significant effect on the integrity of the Bechstein's bat population supported by the site, and primary justification for its designation as an SAC. Consequently, there would be no change to the conservation value of this site during construction of the scheme.

Mells Valley SAC

3.1.8 Although there are no bat protection zones, or avoidance strategies currently in place for Mells Valley SAC, the scheme is within 50 kilometres of this site. This falls within the distance greater horseshoe are known to travel between maternity colonies and hibernation sites, and consequently, there is the potential that bats within the maternity colony at Mells Valley may use hibernation sites, where present, with the potential to be impacted by the scheme.

3.1.9 No hibernation sites for greater horseshoe bats were recorded during the hibernation surveys undertaken for the scheme. In addition to this none of the buildings with the potential for hibernating bats are typical of greater horseshoe hibernation sites. Consequently, there would be no change to the conservation values of this site during construction of the scheme.

North Somerset and Mendip bats SAC

3.1.10 There are no bat protection zones or avoidance strategies which have been set up for the North Somerset and Mendip Bats SAC.

3.1.11 Although the scheme is outside the CSZ for greater horseshoe bat, it is located within 50 kilometres of this SAC. With this species known to travel up to this distance between maternity colonies and hibernation sites, and the North Somerset and Mendip Bats SAC designated for the both these roost types of this species, there is the potential greater horseshoe bats using this SAC may be impacted by construction activities associated with the scheme.

3.1.12 No hibernation sites for greater horseshoe bats were recorded during the hibernation surveys undertaken for the scheme. In addition to this none of the buildings with the potential for hibernating bats are typical of greater horseshoe hibernation sites. Consequently, there would be no change to the conservation values of this site during construction of the scheme. The scheme is a sufficient distance from the CSZ of the lesser horseshoe bat, and the maximum known

distance of lesser horseshoe maternity colonies from their hibernation sites. Consequently, it is not likely that the scheme would have a significant effect on lesser horseshoe using this SAC, with no change in the conservation value of the site for this species.

Nationally designated sites

3.1.13 Information on how nationally designated sites may be impacted by the scheme and the likelihood of these impacts occurring is provided in Table 4.1 below.

Table 4.1 Potential Impacts of the scheme on nationally designated sites

Site name	Potential impacts from scheme	Likelihood of impact from scheme
Sparkford Wood SSSI	Severance of commuting routes through loss of hedgerows and treelines. Loss of foraging resources in the wider environment through loss of scrub, wildflower grassland, tall ruderal and broadleaved woodland habitats.	The scheme would be unlikely to have any direct impacts on the habitats bats are using within the SSSI. Sparkford Woods has limited connections to the scheme, with major roads and railways severing linear features, which may be used by bats to commute between the site and the scheme. However, as some connections remain within the wider environment, linking the 2 areas, there is the potential for bats to use hedgerows and treelines for commuting purposes and suitable foraging habitats within the scheme. Therefore, there is the potential for minor impacts on bat species within this SSSI in absence of mitigation.
Whitesheet Hill SSSI	The site is within 200m of the wider road network predicted to be affected by the scheme. However, no significant impacts have been identified to the wider road network in this area.	This SSSI is a sufficient distance from the scheme that it would be unlikely to be impacted by works associated with construction.
Charnage Down Chalk Pit SSSI	The site is within 200m of the wider road network predicted to be affected by the scheme. However, no significant impacts have been identified to the wider road network in this area.	Habitats on site are likely to be of limited value to bats, with this SSSI designated for its geological importance. It is also sufficient distance from the scheme that it would be unlikely to be impacted by construction.
Stockton Wood and Down SSSI	The site is within 200m of the wider road network predicted to be affected by the proposed scheme. However, no significant impacts have been identified to the wider road network in this area.	This SSSI is a sufficient distance from the scheme that it would be unlikely to be impacted by works associated with construction.

Site name	Potential impacts from scheme	Likelihood of impact from scheme
Yarnbury Castle SSSI	The site is within 200m of the wider road network predicted to be affected by the proposed scheme. However, no significant impacts have been identified to the wider road network in this area.	This SSSI is a sufficient distance from the scheme that it would be unlikely to be impacted by works associated with construction.
Parsonage Down SSSI	The site is within 200m of the wider road network predicted to be affected by the proposed scheme. However, no significant impacts have been identified to the wider road network in this area.	This SSSI is a sufficient distance from the scheme that it would be unlikely to be impacted by works associated with construction.

Regionally designated sites

3.1.14 Information on how regionally designated sites may be impacted by the scheme and the likelihood of these impacts occurring is provided in Table 4.2 below.

Table 4.2: Potential Impacts of the scheme on nationally designated sites

Site name	Potential impacts of the scheme	Likelihood of impacts of the scheme.
Hazlegrove Park LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats	The scheme would be likely to have a direct impact on foraging, commuting and roosting resources. Site clearance works during construction would result in the loss of arable, poor semi-improved grassland and scrub. In absence of mitigation there is the potential for a significant impact on this LWS due to severance of commuting routes and loss of habitat directly south, as part of the construction of Hazlegrove Junction.
Camel Hill Transmitter LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats	The scheme would be likely to have a direct impact on commuting bats, with a small number of trees along the northern boundary of the site removed during site clearance, in absence of mitigation, limited foraging habitats are due to be removed, so it would be unlikely that there would be a significant impact on foraging bats. No roosts have been identified within this LWS, however removal of trees would result in a reduction of the availability of suitable roosting features.
Gason Lane Field LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats	Works associated with the scheme would be likely to impact a small part of this LWS at the northern extent. In isolation, site clearance of this small area of semi-natural calcareous grassland would be unlikely to have a significant impact on bats. However, taken into consideration with the total area of vegetation cleared for the scheme this may

Site name	Potential impacts of the scheme	Likelihood of impacts of the scheme.
		contribute to a significant impact in absence of mitigation.
Downhead Manor Farm LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats	Construction works associated with the scheme have the potential to directly impact commuting routes with the removal of hedgerows along the south-east boundary of this LWS. Hedgerows such as this also afford a useful foraging resource for species, which would be removed during construction. Loss of trees within this hedgerow would reduce the number of suitable roosting features in this area.
Ridge Copse LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats	Absence of removal of any vegetation within this LWS as shown in current proposals would mean it would be unlikely that the scheme would significantly impact this LWS.
Annis Hill LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats and confirmed roosts	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Home Ground Pond LWS	Loss of suitable foraging habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Parsons Steeple LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats and confirmed roosts	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Sparkford Hill Copse LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Vale Farm Field LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.

Site name	Potential impacts of the scheme	Likelihood of impacts of the scheme.
Lindsay House Quarry LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Cogberry Plantation LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Bower Plantation LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
Yarcombe Wood LWS	Severance of commuting routes through loss of hedgerows and treelines. Loss of suitable foraging habitats. Loss of suitable roosting habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.
River Cary LWS	Loss of suitable foraging habitats.	This site is outside of the proposed construction works boundary. It would therefore be unlikely that there would be any significant impacts of construction on this LWS.

Historic bat roosts

3.1.15 Both roosts identified by the desk study are a sufficient distance away from the proposed works that it is unlikely that the scheme would have a direct impact on the roost as a result of factors such as noise, light or vibration. The grid references provided also locate the roosts south of the Royal Naval Air Station Yeovilton, which is situated between the scheme and the roost records. This feature within the landscape has the potential to act as a barrier to bats commuting between roost sites and foraging grounds. In addition to this, there are limited linear connections between the historic roost records and the scheme, with land between the them comprising mainly agricultural land, small residential settlements and roads.

3.1.16 Common pipistrelle and soprano pipistrelle have been attributed CSZ's of 2 kilometres and 3 kilometres respectively. With records provided as 'pipistrelle bat species' this could encompass either of these 2 species, in addition to the

Nathusius' pipistrelle. However, as the Nathusius' pipistrelle is more easily separated as a species from the common and soprano pipistrelle (due to a clear size difference) than the latter 2 species are from each other, it is likely that this roost refers to either common pipistrelle or soprano pipistrelle. The scheme therefore falls on the limits of the common pipistrelles CSZ and within the soprano pipistrelles CSZ. Consequently, where the roost comprised common pipistrelle, the scheme would, in absence of mitigation, likely result in no change in the conservation value of the roost.

3.1.17 Where it is soprano pipistrelle occupying this roost, the scheme falls within the CSZ for this species. This means that reduced habitat availability or quality within this area has the potential to have a significant influence on the resilience and conservation status of the roost. Consequently, in the absence of mitigation, the scheme has the potential to have a minor effect on the roost, resulting in a Slight to Moderate Adverse effect on the roost. In line with the assessment criteria set out in the Chapter 8 Biodiversity of the Environmental Statement, Volume 6.1, this would result in a significant impact.

3.1.18 Ecological enhancements and mitigation have been recommended in section 5. Where these are implemented as part of the scheme, there is the potential for this impact to be reduced to a level that it is no longer significant.

3.1.19 The CSZ attributed to the whiskered bat is 1 kilometre. Although the accuracy of the record is to the nearest 1 kilometre, the closest that this record could be to the scheme would be 1 kilometre away. Consequently, the scheme would sit on the limit of the whiskered bat CSZ. It is therefore sufficient distance away from this roost that it would be unlikely to have a significant influence on its resilience, and in the absence of mitigation there would likely be no change in the conservation value of the roost.

Confirmed and potential roosts

3.1.20 Tree and hedgerow removal, and building demolition have the potential to have significant impacts on confirmed and potential roosts within the survey area. In addition to this, they the potential to result in the removal of features which are not currently in use by roosting bats but are suitable for use. Consequently, reducing the roosting habitat resource within the construction boundary.

3.1.21 Disturbance from construction works also has the potential to cause roost abandonment resulting from increased light, noise and vibration levels. Confirmed and potential roosts which have been identified as having the potential to be impacted by the construction works and how they may be impacted are detailed in Table 4.3.

Table 4.3: Roosts with the potential to be impacted by construction works

Roost Location	Description of roost	Distance from proposed Scheme (m)	Activity with the potential to impact roost	Likely outcome of impacts of the proposed Scheme.
ST84283 Building F001	Active serotine and common pipistrelle day roosts. Inactive brown long-eared bat summer roost. Confirmed from droppings. No evidence of roost activity in 2017 emergence or re-entry surveys.	18	Increased disturbance from light, noise and vibration from construction works associated with Vale Farm Link.	Temporary impact which may cause permanent abandonment by common pipistrelle and serotine, and by brown long-eared bat if roost becomes active again between now and the start of construction,
ST84283 Building F002	Active *Pipistrellus sp.* and soprano pipistrelle day roost roosts.	29	Increased disturbance from light, noise and vibration from construction works associated with Vale Farm Link.	Temporary impact which may cause permanent abandonment by these species.
ST97213 Building F001	Inactive brown long-eared bat summer roost. Confirmed from droppings. No evidence of roost activity in 2017 emergence or re-entry surveys.	23	Increased disturbance from light, noise and vibration from works within temporary works area.	Temporary impact which may cause permanent abandonment by species if roost becomes active again between now and the start of construction.
ST125075 Building F001	Active common pipistrelle day roost. Inactive brown long-eared bat summer roost. Confirmed from droppings. No evidence of roost activity in 2017 emergence or re-entry surveys.	17	Increased disturbance from light, noise and vibration from works within temporary works area.	Temporary impact which may cause permanent abandonment by common pipistrelle and by other species if roost becomes active again between now and the start of construction,
ST128002 Building F003	Active soprano pipistrelle day roost.	10	Increased disturbance from light, noise and vibration from works within temporary works area.	Temporary impact which may cause permanent abandonment by soprano pipistrelle.
ST147000 Building F001	Active common pipistrelle day roost. Inactive serotine summer roost confirmed from droppings but with no emergence or return activity in 2017 surveys. Old, dead lesser horseshoe bat identified indicating previous use by this species.	18	Increased disturbance from light, noise and vibration from construction of Steart Hill link.	Temporary impact which may cause permanent abandonment by common pipistrelle and by other species if roost becomes active again between now and the start of construction,

Roost Location	Description of roost	Distance from proposed Scheme (m)	Activity with the potential to impact roost	Likely outcome of impacts of the proposed Scheme.
ST153085 Tree F039	Active common pipistrelle day roost	Within temporary works area	Felling of tree Increased disturbance from light, noise and vibration from works within temporary works area.	Tree is within temporary works area. If this tree is felled there would be a permanent loss of this roost. Where the tree is not felled there would be a temporary disturbance impact, which may cause permanent abandonment.
U00029-43 Tree F018	Inactive suspected brown long-eared summer roost. Old droppings identified but too degraded for DNA analysis. No evidence of roost activity in 2017 emergence or re-entry surveys.	55	Increased disturbance from light, noise and vibration from haul road works.	Temporary impact which may cause permanent abandonment by brown long-eared bat if roost becomes active again between now and the start of construction.
WS56543 Building F001	Inactive brown long-eared bat summer roost. Confirmed from droppings. No evidence of roost activity in 2017 emergence or re-entry surveys.	2	Increased disturbance from light, noise and vibration from main road construction works.	Temporary impact which may cause permanent abandonment if roost becomes active again between now and the start of construction.
WS64408 Building F001	Inactive *Pipistrellus sp.* summer roost confirmed due to droppings which were noted as being too old to take specimens. No evidence of roost activity in 2017 emergence or re-entry surveys.	Within proposed Scheme	Demolition of building	Permanent loss of this historic roost is certain under the current scheme design.
WS75059 Tree F008	Active *Myotis sp.* suspected maternity roost.	Within temporary works area	Felling of tree Increased disturbance from light, noise and vibration from works within temporary works area.	Tree is within temporary works area. If this tree is felled there would be a permanent loss of this roost. Where the tree is not felled there would be a temporary impact from disturbance, which may cause permanent abandonment if roost becomes active again between now and the start of construction.

Foraging and Commuting Resources

Permanent loss of habitat

3.1.22 Tree felling and hedgerow removal proposed as part of the construction works, including the construction of the haul route, have the potential to disrupt commuting routes and reduce foraging resources, in addition to resulting in permanent loss of habitat on site. Vegetation clearance, including grassland habitats would also result in permanent loss of habitat, and reduce the foraging resources on site.

3.1.23 In order to facilitate the widening of the existing A303, large areas of hedgerow adjacent to the road, running east to west would be removed. Sections of these hedgerows have been shown to be of importance to commuting bats, both through their support of rarer bat species and the high levels of activity noted by more common bat species in the area. These hedgerows have therefore been noted as being important links between bat roosts and foraging grounds. The loss of this habitat has the potential to result in fragmentation of habitat, severing the links that commuting routes serve between roosts and foraging grounds. In addition to this, where linear features would be lost, and replaced directly with new road infrastructure, there would likely to be an increase in collision risk of bats with vehicles. Therefore, removal of hedgerows would be likely to have a significant impact on bats.

3.1.24 The construction of the Downhead Junction link would remove large areas of hedgerows running north to south between Slate Lane and the existing A303, noted to the used by high levels of common bat species for commuting purposes. The loss of this feature would be likely to severe commuting routes, fragmenting roosts and foraging habitats, in addition to increasing the collision risk from vehicles. The construction of this junction therefore has the potential to have significant impacts on these species.

3.1.25 The hedgerow to the south of the existing A303, approximately 220 metres east of Canegore Corner, noted for its importance for rare bat species, and its potential to be used as a crossing point for bats over the existing A303, connecting habitats to the north and south would be impacted on by widening works to the existing A303. This would result in the removal of approximately 120 metres of this hedgerow, in addition to an increase in the distance between this hedgerow and the connecting hedgerow north of the existing A303, from approximately 13 metres to approximately 65 metres, fragmenting habitats and increasing collision risk. It should be noted that within this 65 metres there is a 30 metre length of the proposed new A303, followed by approximately 25 metres length of planting, then the existing A303 which would become an access track. However, there would still likely be significant impacts on common and rare species noted as using this feature.

3.1.26 The construction of the Vale Farm Link would require the removal of hedgerows to the north, east and west of Camel Hill House. Known roosts are within 2 of the buildings here, with hedgerows leading from these roosts into the wider environment to the north, east and west connecting bats within the roost to their foraging grounds. Severance of through removal of areas of these hedgerows has the potential to have a significant impact on bats within these roosts.

3.1.27 Large areas of habitat would be removed to facilitate the construction of Hazlegrove Junction. Features noted as being used by commuting bats in this area include, the woodland west of the current entrance to Hazlegrove School, the band of woodland to the east, and sections of hedgerows running north to south between Pepper Hill Copse and the woodland at the current entrance of Hazlegrove School. High levels of activity from a number of common bat species has been recorded in these areas. Consequently, construction works associated with Hazlegrove Junction would be likely to result in a permanent loss of these commuting features and has the potential to have significant impact on commuting bats due to increased collision risk and fragmentation of habitats.

3.1.28 In addition to the disruption of commuting routes within the footprint of Hazlegrove Junction, the fields either side of the woodland to the west of the current Hazlegrove School entrance have been noted for their high levels of foraging activity from a number of common bat species. Removal of these habitats would be likely to result in a permanent loss of suitable foraging habitat at the eastern extent of the scheme, and has the potential to have significant impact on foraging bats, as a result of the reduction in foraging resources available in this area.

Temporary loss of habitat

3.1.29 Temporary hedgerow removal and habitat clearance, where habitats would be reinstated post-construction, also has the potential to have permanent impacts on bats. This is due to the severance of commuting routes, even for a short time, known to cause abandonment of historic commuting route.

3.1.30 Temporary works areas used during construction, would be likely to be in use for up to 3 years, with it expected that approximately 8,802 metres of hedgerow would be lost and replanted as a result of these works.

3.1.31 The construction of haul routes and clearance to facilitate temporary works areas would be likely to cause temporary loss of habitat, with planting lost reinstated post-construction. However, as described these activities have the potential to have permanent impacts on commuting and foraging, which has the potential to have significant impacts on bats.

Increased disturbance

3.1.32 Increased levels of disturbance, particularly from light and noise associated with construction works, in particular night works, also has the potential to alter commuting and foraging behaviour of bats. Slower flying species, such as lesser horseshoe is known to avoid lit areas, while others such as common pipistrelle are known to change their foraging behaviour in lit areas, concentrating their foraging effort on smaller lit areas.

3.1.33 Ultimately this has the potential to cause a shift in the population dynamics of bat species within the survey area. This would be likely to impact rarer species both through loss of foraging habitats and disruption of commuting route, in addition to increased mortality risk from avoidance of areas subject to higher levels of disturbance and reduced prey availability.

3.1.34 Where notable habitats within the survey area which were shown to support rare species, large number of bats or a diverse array of bat species, have the potential to be impacted by construction works, the impacts from site clearance works and increased disturbance have the potential to be more significant.

3.2 Operation

Designated sites

European designated sites

3.2.1 The potential impact during operation on bats which may be using European designated sites for bats within 30 kilometres of the survey area has been considered below, and has also been subject to a Habitats Regulations Assessment (DCO submission document 6.6 Habitats Regulations Assessment).

3.2.2 Where bats present within the survey area are also using the sites described below, any significant impact on bats within this area have the potential to impact on the conservation status the SAC's they are associated with.

Bracket's Coppice SAC

3.2.3 The scheme does not fall within the Bracket's Coppice SAC Bat Protection Zone or the standard 1 kilometre CSZ and extended 3 kilometre CSZ, area required from a roost to sustain the greater horseshoe bat population within it. Operation of the scheme would therefore not be likely to have a significant effect on the integrity of the Bechstein's bat population supported by the site, and primary justification for its designation as an SAC. Consequently, there would be no change to the conservation value of this site during construction of the scheme.

Mells Valley SAC

3.2.4 Although there are no bat protection zones, or avoidance strategies currently in place for Mells Valley SAC, the scheme is within 50 kilometres of this site. This falls within the distance greater horseshoe are known to travel between maternity colonies and hibernation sites, and consequently, there is the potential that bats within the maternity colony at Mells Valley may use hibernation sites, where present, with the potential to be impacted by operation of the scheme.

3.2.5 No hibernation sites for greater horseshoe bats were recorded during the hibernation surveys undertaken for the proposed scheme. In addition to this none of the buildings with the potential for hibernating bats are typical of greater horseshoe hibernation sites. Consequently, there will be no change to the conservation values of this site during operation of the proposed scheme. scheme

North Somerset and Mendip Bats SAC

3.2.6 There are no bat protection zones or avoidance strategies which have been set up for the North Somerset and Mendip Bats SAC.

3.2.7 Although the scheme is outside the CSZ for greater horseshoe bat, it is located within 50 kilometres of this SAC. With this species known to travel up to this distance between maternity colonies and hibernation sites, and the North Somerset and Mendip Bats SAC designated for the both these roost types of this species, there is the potential greater horseshoe bats using this SAC may be impacted by operation of the scheme.

3.2.8 No hibernation sites for greater horseshoe bats were recorded during the hibernation surveys undertaken for the scheme. In addition to this, none of the buildings with the potential for hibernating bats are typical of greater horseshoe hibernation sites. Consequently, there would be no change to the conservation values of this site during operation of the scheme. The scheme is a sufficient distance from the CSZ of the lesser horseshoe bat, and the maximum known distance of lesser horseshoe maternity colonies from their hibernation sites. Consequently, it not likely that it would have a significant effect on lesser horseshoe using this SAC, with no change in the conservation value of the site for this species.

Nationally designated sites

3.2.9 Where nationally designated sites would be impacted by the operation of the scheme, and they become less suitable for use by bats, individuals within the survey area may become impacted, for example through loss of foraging resource in the wider environment.

3.2.10 All nationally designated sites within the search radius are of a sufficient distance away from the scheme that it is considered unlikely that they would be impacted by operation once works are complete, preventing further impact on bats recorded in the survey area.

Regionally designated sites

3.2.11 Although the operation of the scheme would be unlikely to have a direct impact on LWS's themselves, increased levels of disturbance from noise, vibration and light as a result of operation, experienced by these sites, has the potential to have a significant impact on bats known to use them.

3.2.12 LWS's comprising habitats suitable for bat use, with the potential to experience elevated levels of disturbance as a result of operation of the scheme are listed below:

- Hazlegrove Park LWS
- Camel Hill Transmitter LWS
- Gason Lane Field LWS
- Downhead Manor Farm LWS

3.2.13 All 4 of these sites have been noted for their potential to support foraging, commuting and roosting bats, with impacts from permanent habitat loss, increased light, noise and vibration levels as a result of operation of the scheme having the potential to affect the site functionality for all of these sites.

Historic bat roosts

3.2.14 Both roosts identified by the desk study are a sufficient distance away from the proposed works that it would be unlikely that operation of the scheme would have a direct impact on the roosts as a result factors such as noise, light or vibration. The grid references provided also locate the roosts south of the Royal Naval Air Station Yeovilton, which is situated between the scheme and the roost records. This feature within the landscape has the potential to act as a barrier to bats commuting between roost sites and foraging grounds. In addition to this, there are limited linear connections between the historic roost records and the scheme, with land between the them comprising mainly agricultural land, small residential settlements and roads.

3.2.15 Common pipistrelle and soprano pipistrelle have been attributed CSZ's of 2 kilometre and 3 kilometre respectively. With records provided as 'pipistrelle bat species' this could encompass either of these 2 species, in addition to the Nathusius' pipistrelle. However, as the Nathusius' pipistrelle is more easily separated as a species from the common and soprano pipistrelle (due to a clear size difference) than the latter 2 species are from each other, it is likely that this roost refers to either common pipistrelle or soprano pipistrelle. The scheme

therefore falls on the limits of the common pipistrelles CSZ and within the soprano pipistrelles CSZ. Consequently, where the roost comprised common pipistrelle the Scheme would, in absence of mitigation, likely result in no change in the conservation value of the roost.

3.2.16 Where it is soprano pipistrelle occupying this roost, the scheme falls within the CSZ for this species. This means that reduced habitat availability or quality within this area has the potential to have a significant influence on the resilience and conservation status of the roost. Consequently, in the absence of mitigation, the operation of the scheme has the potential to have a minor effect on the roost, where there is permanent loss of suitable habitat, resulting in a Slight to Moderate Adverse effect on the roost. In line with the assessment criteria set out in Chapter 8 Biodiversity of the Environmental Statement, Volume 6.1.

3.2.17 Ecological enhancements and mitigation have been recommended in section 5. Where these are implemented as part of the scheme there is the potential for this impact to be reduced, to a level that it is no longer significant.

3.2.18 The CSZ attributed to the whiskered bat is 1 kilometre. Although the accuracy of the record is to the nearest 1 kilometre, the closest that this record could be to the scheme would be 1 kilometre away. Consequently, the scheme would sit on the limit of the whiskered bat CSZ. It is therefore sufficient distance away from this roost that it would be unlikely to have a significant influence on its resilience, and in the absence of mitigation there would likely be no change in the conservation value of the roost.

Confirmed and potential roosts

3.2.19 Permanent habitat loss would affect known roosts within the survey area directly, through removal of the roost itself. In addition to this, increased disturbance from light, noise and vibration during operation would impact roosts adjacent to the road. Known roosts with the potential to experience significant impacts, in absence of mitigation, leading to reduced roost usage, roost abandonment or direct loss of the roost itself are described in Table 4.4 below.

Table 4.4: Roosts with the potential to be impacted during operation

Roost location	Description of roost	Distance from scheme (m)	Activity with the potential to directly impact roost	Likely outcome of impacts of the scheme in absence of mitigation
ST84283 Building F001	Active serotine and common pipistrelle. Inactive brown long-eared bat roost. Confirmed from droppings. No evidence of roost	17	Increased disturbance from light, noise and vibration during operation of Vale Farm Link.	Permanent impact which may cause permanent abandonment by common pipistrelle and serotine, and by brown long-eared bat if roost becomes active again

Roost location	Description of roost	Distance from scheme (m)	Activity with the potential to directly impact roost	Likely outcome of impacts of the scheme in absence of mitigation
	activity in 2017 emergence or re-entry surveys.			between now and operation. Disturbance levels are currently low in this area, consequently any increase in disturbance has the potential to have significant impacts. Permanent impact form loss and severance of commuting routes to the north, east and west, reducing connectivity between roost and foraging grounds, and would be likely to have a significant impact on bats within the roost.
ST84283 Building F002	Active *Pipistrellus sp.* and soprano pipistrelle roost.	29	Increased disturbance from light, noise and vibration during operation of Vale Farm Link.	Permanent impact which may cause permanent abandonment by these species. Disturbance levels are currently low in this area, consequently any increase in disturbance has the potential to have significant impacts. Permanent impact form loss and severance of commuting routes to the north, east and west, reducing connectivity between roost and foraging grounds, and would be likely to have a significant impact on bats within the roost.
ST147000 Building F001	Active common pipistrelle roost. Inactive serotine roost confirmed from droppings but with no emergence or return activity in 2017 surveys. Old, dead lesser horseshoe bat identified indicating previous use by this species.	18	Increased disturbance from light, noise and vibration from operation of Steart Hill Link, immediately south.	Permanent impact which may cause permanent abandonment by common pipistrelle and by other species if roost becomes active again between now and operation. Disturbance levels are currently moderate in this area, consequently small increases in disturbance would be unlikely to have significant impact on the roost. However, large

Roost location	Description of roost	Distance from scheme (m)	Activity with the potential to directly impact roost	Likely outcome of impacts of the scheme in absence of mitigation
				changes to disturbance levels would belikely to have significant impact for bats.
ST153085 Tree F039	Active common pipistrelle roost	30	Increased disturbance from light, noise and vibration from operation of widened road immediately west.	Permanent impact which may cause permanent abandonment if roost becomes active again between now and operation. Disturbance levels are currently low here, and consequently any increase in disturbance would be likely to have a significant impact on bats.
WS56543 Building F001	Inactive brown long-eared bat roost. Confirmed from droppings. No evidence of roost activity in 2017 emergence or re-entry surveys.	2	Increased disturbance from light, noise and vibration from main road construction works.	Permanent impact which may cause permanent abandonment if roost becomes active again between now and operation. Disturbance levels are currently high here, consequently only large increases in disturbance would be likely to have significant impact on bats.
WS64408 Building F001	Inactive *Pipistrellus sp.* roost confirmed due to droppings which were noted as being too old to take specimens. No evidence of roost activity in 2017 emergence or re-entry surveys.	Within proposed Scheme	Demolition of building	Permanent loss of this roost is certain under the current scheme design, with the operational road replacing the current location of the building. Operation would have a significant impact on this bat roost.

3.2.20 Permanent habitat loss would also result in the reduction of suitable roosting features in trees within the survey area. Although these were not recorded as being in use by bats during 2017, the loss of roosting resources has the potential to have significant impact on bats, through the reduction in availability of suitable roosting features within habitats associated with the scheme. This has the potential to have a significant impact on local bat populations.

3.2.21 Increased disturbance in previously undisturbed areas, or areas subject to low levels of disturbance would also be likely to reduce the suitability of roosting

features. This would also reduce the availability of suitable roosts, further impacting local bat populations using habitats associated with the scheme.

Foraging and commuting resources

Severance and removal of linear features

3.2.22 Permanent habitat loss across the scheme, to facilitate the widening of the existing A303, in addition to the upgrade of existing junctions and construction of new junctions would result in the removal of large areas of hedgerow, known to be used by bats for commuting purposes. Where these areas of lost habitat would not be replanted, with the operational road taking their place, there would be likely be a significant impact due to the permanent severance of these commuting routes. These areas comprise:

- large extents of hedgerow adjacent to the road, running east to west removed to facilitate widening of the existing A303
- hedgerow running north to south between Slate Lane and the existing A303 removed to facilitate the Downhead Junction link
- removal of hedgerows to the north, east and west of Camel Hill House to facilitate construction of the Vale Farm Link
- removal of hedgerows and woodland to facilitate Hazlegrove Junction, including;
    - the woodland west of the current entrance to Hazlegrove School,
    - the band of woodland to the east of the current entrance to Hazlegrove School
    - sections of hedgerows running north to south between Pepper Hill Copse and the woodland at the current entrance of Hazlegrove School

3.2.23 The hedgerow to the south of the existing A303, approximately 220 metres east of Canegore Corner, would be impacted by works associated with the widening of the existing A303. This was noted for its importance for rare bat species, and its potential to be used as a crossing point for bats over the existing A303, connecting habitats to the north and south. Proposed widening works would result in the removal of areas of this hedgerow, in addition to an increase in the distance between this hedgerow and the connecting hedgerow north of the existing A303. This has the potential to sever the link between the north and the south, increasing the collision risk of bats with vehicles, and in turn incidences of road mortality. The larger distance between these 2 features may also cause abandonment of the use of this commuting route, through the increase of the length of the gap from 13 metres to approximately 65 metres. It should be noted that within this 65 metres there is a 30 metres length of the proposed new A303, followed by approximately 25 metre length of planting, then the existing A303 which would become an access track. This has the potential to increase

the length of the gap beyond the size that bats are able to cross. This has the potential to have a permanent significant impact on both common and rare bat species.

Permanent loss of foraging habitat

3.2.24 Permanent loss of habitat as a result of the scheme would be likely to result in the permanent loss of foraging habitats. Although there would be no permanent loss of calcareous semi-improved grassland, there would be the permanent loss of the following habitats, which may be used by bats for foraging purposes:

- Arable land – 7.23 hectare permanent loss
- Poor semi-improved grassland – 7.20 hectare permanent loss
- Broadleaved plantation woodland – 0.06 hectare permanent loss
- Broadleaved semi-natural woodland – 0.60 hectare permanent loss
- Broadleaved parkland scattered trees – 0.03 hectare permanent loss
- Improved grassland – 3.92 hectare permanent loss

3.2.25 Where these areas of lost habitat would not be replanted, with the operational road taking their place, there would be likely to be a significant impact due to the permanent reduction in available foraging resources within the survey area. These areas comprise:

- the fields between Slate Lane and the existing A303
- the woodland west of the current entrance to Hazlegrove School
- the band of woodland to the east of the current entrance to Hazlegrove School
- fields either side of the woodland to the west of the current Hazlegrove School

3.2.26 Removal of these habitats would be likely to result in a permanent loss of suitable foraging habitat at the eastern extent of the scheme, and has the potential to have significant impact on foraging bats.

3.2.27 In addition to the areas listed above it should be noted that loss of multiple areas of small habitat patches suitable for foraging bats across the scheme, such as at the edge of the existing A303 and around proposed smaller junction construction, although not significant by themselves, would be likely to have an additive effect, resulting in the potential to have permanent significant effects on bats in absence of mitigation.

3.2.28 Although large areas of habitats would be likely to be permanently lost as a result of the scheme, replacement planting is proposed as part of the mitigation and enhancements for the scheme. In addition to this, it should be noted that the wider environment is largely rural, with numerous habitat connections

between habitats on site and those suitable for bats within the wider environment. There are therefore opportunities for bats using habitats within the survey area to disperse into the wider environment.

3.3 Summary of impacts

Construction

3.3.1 A summary of the potential impacts on bats as a result of construction of the scheme is detailed in Table 4.5. The scale of the potential impact is detailed in absence of mitigation, alongside recommended mitigation to reduce the potential impacts of the construction works associate with the scheme, and the predicted magnitude and residual effect where all mitigation and enhancement measures were to be implemented into the scheme design.

3.3.2 Further detailed information regarding recommended mitigation and enhancements for the scheme is provided in section 5.

Table 4.5: Predicted nature conservation effects during construction of the scheme

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
Demolition of building F001 on land parcel WS64408	Destruction of a historic *Pipistrellus sp.* roost	Major Adverse	Reinspect the building 1 year prior to demolition and repeat of emergence and re-entry surveys. Soft strip immediately prior to demolition. Installation of a bat house	Negligible	Neutral to Slight Adverse
Habitat clearance	Loss of roosting habitat	Major Adverse	Replacement of lost roosting habitat through the installation of bat boxes.	Minor Adverse	Slight Adverse
	Loss of commuting habitat	Major Adverse	Reinstate all hedgerows where possible. Protect and enhance adjacent hedgerows.	Minor Adverse	Slight Adverse
	Severance of commuting corridors	Major Adverse	Minimise treeline and hedge clearance. Limit gaps created in linear features to 10m maximum in width. Reinstate hedgerows, replanting gaps where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Minor Adverse	Slight to Moderate Adverse
	Loss of foraging habitat	Moderate Adverse	Minimise woodland and calcareous and neutral grassland.	Minor Adverse	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			Reinstate habitats ensuring a minimum replacement equal to the area lost.		
	Unfavourable impact on conservation status of designated sites.	Major Adverse	Reinstate and enhance habitats and replace lost roosting features to support rare bat populations using habitats within the scheme, which may also be present in designated sites.	Negligible	Slight Adverse
Construction and use of haul roads	Loss of roosting habitat	Moderate Adverse	Replacement of lost roosting habitat through the installation of bat boxes.	Negligible	Neutral to Slight Adverse
	Loss of commuting habitat	Major Adverse	Reinstate all hedgerows where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Negligible	Neutral to Slight Adverse
	Severance of commuting corridors	Moderate Adverse	Minimise treeline and hedge clearance. Limit gaps created in linear features to 10m maximum in width. Reinstate hedgerows, replanting gaps where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Minor Adverse	Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Loss of foraging habitat	Moderate Adverse	Minimise woodland and calcareous and neutral grassland. Reinstate habitats ensuring a minimum replacement equal to the area lost.	Negligible	Neutral to Slight Adverse
	Disturbance to roosts from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto roosts. Implement a buffer of at least 10m around roosts where no lighting can be installed.	Negligible	Slight Adverse
	Disturbance to commuting routes from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto hedgerows and treelines. Implement a buffer of at least 10m around hedgerows and treelines where no lighting can be installed.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto important foraging grounds. Implement a buffer of at least 10m around important foraging	Negligible	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			grounds where no lighting can be installed.		
	Disturbance to roosts from noise and vibration	Moderate Adverse	Ensure haul roads are not within 10m of roosts or potential roosting habitat Avoid night time working.	Negligible	Neutral to Slight Adverse
	Disturbance to commuting routes noise and vibration	Moderate Adverse	Ensure haul roads are not within 10m of treelines, hedgerows or woodland blocks. Avoid night time working.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from noise and vibration	Moderate Adverse	Ensure haul roads are not within 10m of treelines, hedgerows, woodland blocks or other areas noted as important for foraging. Avoid night time working.	Negligible	Neutral to Slight Adverse
Construction and use of temporary compound and storage areas	Disturbance to potential *Myotis sp.* maternity roost in tree F008 at WS75059.	Major Adverse	Implement a buffer zone of a minimum of 10m around the tree line that the tree is located within. No works or lighting shall be permitted in this area, with all lighting required to be directed away from the roost. Retention and protection of the treeline the roost is located within.	Minor adverse	Slight to Moderate Adverse
	Loss of roosting habitat	Moderate Adverse	Replacement of lost roosting habitat through the installation of bat boxes.	Minor adverse	Slight to Moderate Adverse
	Loss of commuting habitat	Moderate Adverse	Reinstate all hedgerows where possible.	Negligible	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.		
	Severance of commuting corridors	Moderate Adverse	Minimise treeline and hedge clearance. Limit gaps created in linear features to 10m maximum in width. Reinstate hedgerows, replanting gaps where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Negligible	Neutral to Slight Adverse
	Loss of foraging habitat	Moderate Adverse	Minimise woodland and calcareous and neutral grassland. Reinstate habitats ensuring a minimum replacement equal to the area lost.	Negligible	Neutral to Slight Adverse
	Disturbance to roosts from lighting	Major Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto roosts. Implement a buffer of at least 10m around roosts where no lighting can be installed.	Minor Adverse	Slight to Moderate Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Disturbance to commuting routes from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto hedgerows and treelines. Implement a buffer of at least 10m around hedgerows and treelines where no lighting can be installed.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto important foraging grounds. Implement a buffer of at least 10m around important foraging grounds where no lighting can be installed.	Negligible	Neutral to Slight Adverse
	Disturbance to roosts from noise and vibration	Major Adverse	Ensure works within temporary works areas are not within 10m of roosts or potential roosting habitat Avoid night time working.	Negligible	Neutral to Slight Adverse
	Disturbance to commuting routes noise and vibration	Moderate Adverse	Ensure work within temporary works areas are not within 10m of treelines, hedgerows or woodland blocks. Avoid night time working.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from noise and vibration	Moderate Adverse	Ensure work within temporary works areas haul roads are not within 10m of treelines,	Negligible	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			hedgerows, woodland blocks or other areas noted as important for foraging. Avoid night time working.		
Widening of existing A303	Loss of roosting habitat	Major Adverse	Replacement of lost roosting habitat through the installation of bat boxes.	Minor Adverse	Slight to Moderate Adverse
	Loss of commuting habitat	Major Adverse	Protect and enhance adjacent hedgerows. Replacement planting in appropriate areas within the scheme. Use of dead hedging to maintain linear features during construction.	Minor Adverse	Slight to Moderate Adverse
	Severance of commuting corridors	Major Adverse	Minimise treeline and hedge clearance. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction. Replacement planting in appropriate areas within the scheme adjacent hedgerows.	Minor Adverse	Slight to Moderate Adverse
	Disturbance to roosts in building F001 at WS56543 from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto roosts.	Negligible	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Disturbance to roosts in tree F039 at ST153085 from lighting	Major Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto roosts. Implement a buffer of at least 10m around roosts where no lighting can be installed.	Negligible	Neutral to Slight Adverse
	Disturbance to commuting routes from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto hedgerows and treelines.	Negligible	Neutral to Slight Adverse
	Disturbance to roosts in building F001 at WS56543 noise and vibration	Moderate Adverse	Ensure work within is not within 10m of the rear of the building,	Negligible	Neutral to Slight Adverse
	Disturbance to roosts in tree F039 at ST153085 from lighting	Major Adverse	Ensure work are not within 10m of roost.	Negligible	Neutral to Slight Adverse
Construction of new junctions	Loss of roosting habitat	Major Adverse	Replacement of lost roosting habitat through the installation of bat boxes.	Minor Adverse	Slight to Moderate Adverse
	Loss of commuting habitat	Moderate Adverse	Reinstate all hedgerows where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Minor Adverse	Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Severance of commuting corridors	Moderate Adverse	Minimise treeline and hedge clearance. Limit gaps created in linear features to 10m maximum in width. Reinstate hedgerows, replanting gaps where possible. Protect and enhance adjacent hedgerows. Use of dead hedging to maintain linear features during construction.	Minor Adverse	Slight Adverse
	Loss of foraging habitat	Moderate Adverse	Minimise woodland and calcareous and neutral grassland clearance. Reinstate habitats ensuring a minimum replacement equal to the area lost.	Minor Adverse	Slight Adverse
	Disturbance to roosts from lighting	Major Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats.	Negligible	Slight Adverse
	Disturbance to commuting routes from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive lighting prevent light spill onto hedgerows and treelines.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from lighting	Moderate Adverse	Minimise night-time lighting. Where lighting required use directional and wildlife sensitive	Negligible	Neutral to Slight Adverse

Activity	Impact	Magnitude of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			lighting prevent light spill onto important foraging grounds. Implement a buffer of at least 10m around important foraging grounds where no lighting can be installed.		
	Disturbance to roosts from noise and vibration	Major Adverse	Ensure noise and vibration levels are kept to a minimum in areas 10m around roosts or potential roosting habitat Avoid night time working.	Negligible	Slight Adverse
	Disturbance to commuting routes noise and vibration	Moderate Adverse	Avoid night time working.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from noise and vibration	Moderate Adverse	Avoid night time working.	Negligible	Neutral to Slight Adverse

Operation

3.3.3 A summary of the potential impacts on bats as a result of operation of the scheme is detailed in Table 4.6. The scale of the potential impact is detailed in absence of mitigation, alongside recommended mitigation to reduce the potential impacts of the construction works associate with the scheme, and the predicted magnitude and residual effect where all mitigation and enhancement measures were to be implemented into the scheme design.

3.3.4 Further detailed information regarding recommended mitigation and enhancements for the scheme is provided in section 5.

Table 4.6: Predicted nature conservation effects during operation of the scheme

Activity	Impact	Significance of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
Demolition of building F001 on land parcel WS64408	Destruction of historic *Pipistrellus sp.* roost	Major Adverse	Installation of a bat house	Negligible	Neutral to Slight Adverse
Permanent loss of habitat	Increased size and number of gaps between hedgerows either side of the proposed scheme, increasing risk of mortality from collision risk.	Moderate Adverse	Enhance existing commuting routes impacted, planting trees and taller vegetation immediately adjacent to both sides of the road to encourage bat flight lines above the line of traffic. Where commuting routes have been identified as important for Annex II species, enhance remaining commuting routes and install bat hop overs.	Minor adverse	Slight to Moderate Adverse
	Loss of suitable roosting habitat	Major Adverse	Installation of bat boxes and monitoring of these boxes to ensure they are still suitable for bat use. Replace these where they are no longer suitable.	Minor adverse	Slight to Moderate Adverse
	Reduced availability of suitable foraging habitat	Moderate Adverse	Ensure reinstated and newly created habitats are monitored for successful establishment, ensuring a minimum replacement is still equal to the area lost.	Negligible	Neutral to Slight Adverse
	Unfavourable impact on conservation status of designated sites.	Major Adverse	Ensure habitat enhancements are appropriately maintained throughout operation. Habitat should be replanted where	Negligible	Slight Adverse

Activity	Impact	Significance of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			they do not establish sufficiently and bat boxes should be replaced when they come to the end of their life.		
Operation of the main A303	Disturbance to roosts from lighting	Major Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the operational life of the road comply with this or any updated guidance.	Minor adverse	Slight to Moderate Adverse
	Disturbance to commuting routes from lighting	Major Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the operational life of the road comply with this or any updated guidance.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from lighting	Moderate Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the operational life of the road comply with this or any updated guidance.	Negligible	Neutral to Slight Adverse

Activity	Impact	Significance of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Disturbance to roosts from noise and vibration	Major Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Slight Adverse
	Disturbance to commuting routes noise and vibration	Moderate Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from noise and vibration	Moderate Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Neutral to Slight Adverse
Operation of new junctions	Isolation of roosts at ST84283 building F001 and F001 from Vale Farm Link.	Major Adverse	Protect and enhance adjacent remaining hedgerows, providing alternative connections to the wider environment. Monitor these to ensure suitable habitat links to the wider environment establish well and persist into the future.	Minor adverse	Slight to Moderate Adverse
	Disturbance to roosts from lighting	Major Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the	Negligible	Slight Adverse

Activity	Impact	Significance of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
			operational life of the road comply with this or any updated guidance.		
	Disturbance to commuting routes from lighting	Major Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the operational life of the road comply with this or any updated guidance.	Negligible	Neutral to Slight Adverse
	Disturbance to foraging from lighting	Moderate Adverse	Use directional and wildlife sensitive lighting prevent light spill onto roosts or roosting habitats. Ensure any alterations to road lighting throughout the operational life of the road comply with this or any updated guidance.	Negligible	Neutral to Slight Adverse
	Disturbance to roosts from noise and vibration	Major Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Neutral to Slight Adverse
	Disturbance to commuting routes noise and vibration	Moderate Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Neutral to Slight Adverse

Activity	Impact	Significance of impact in absence of mitigation	Recommended mitigation and enhancements	Magnitude of impact where mitigation and enhancements incorporated	Residual effect where mitigation and enhancements incorporated
	Disturbance to foraging from noise and vibration	Moderate Adverse	Acoustic barriers and soil bunds should be integrated into the design in areas where noise and vibration have been assessed as significantly increasing.	Negligible	Neutral to Slight Adverse
Habitat creation	Habitat creation	No change	Compensation planting and habitat enhancements to compensation areas adjacent to the scheme.	Moderate Beneficial	Moderate to Large Beneficial

4 Mitigation and enhancement recommendations

4.1 Mitigation

Loss of roosts in buildings

4.1.1 One building (F001 at WS64408) would be demolished as it is currently located where widening of a section of the existing A303 is proposed. This building was recorded as having previously been used by *Pipistrellus sp.* to roost. However, during the internal building inspection droppings were noted as being old. In addition to this, no emergence or re-entry activity was noted during the 2017 survey. As it was concluded that this building is not currently being used by bats for roosting, a European Protected Species Mitigation (EPSM) licence is not currently required.

4.1.2 However, as this building is known to have previously been used as a roost it is recommended that the following mitigation measures are implemented within the programme of works. This will ensure legislative compliance and best practice will be met. An internal inspection of the building would be scheduled a year prior to the planned demolition to inspect internal voids for evidence of recent roosting activity. It is also recommended that emergence and re-entry surveys are undertaken, spread through the survey season prior to demolition and in line with *BCT Best Practice Guidelines*[4]. Results from these surveys would be used to determine whether roosts within the building have become active again, and the need for an EPS licence.

4.1.3 Where no roost is identified during the re-inspection of this building, it is recommended that it undergoes a soft strip, prior to the main demolition works.

4.1.4 In order to mitigate for the loss of the roosting resource provided by building F001 at WS64408, the installation of a bat house within suitable habitat is recommended. A bat house would aim to replace the potential roost lost and enhance the site for species such as lesser horseshoe and serotine which have been recorded and are less likely to use tree roost boxes.

4.1.5 It is recommended that bat houses are at least 60 centimetres tall, and have chambers that are at least 50 centimetres tall and 35 centimetres wide. They also require a landing area which extends below the entrance of at least 8 centimetres, although recessed partitions are also an acceptable option. At least 4 roosting chambers should be constructed inside the bat houses, with roost partitions spaces approximately 2.5 centimetres apart. Bat houses can be constructed using wood such as exterior plywood (ACX, BCX or T1-11 grade) which should be at least 2 centimetres thick with at least 4 plies. Pressure treated wood is not recommended for use and all staples, screws or nails would need to be filed down so they are flush with the wood. Wood on landing areas

and partitions should be roughened. This can be done by scratching the wood or making horizontal groves at 0.5-1 centimetre intervals. It is recommended that the bat house is located in the ecological mitigation area to the east of building F001 at WS64408, in an area sheltered from wind and rain, with some exposure to the sun, and linked to linear features such as hedgerows. The bat house should be installed between 3.5 metres and 6 metres high on a sturdy pole secured into the ground.

Habitat clearance

4.1.6 In order to reduce the impact on foraging and commuting bats, and reduce the area of potential roosting habitat lost, it is recommended that habitat clearance of the following habitats is limited to the minimum necessary.

- Hedgerows and treelines
- Woodland
- Woodland pasture

4.1.7 Where habitat clearance cannot be avoided, mitigation and enhancement measures detailed in the sections below should be addressed.

Loss of connectivity from hedgerow removal

4.1.8 It is recommended that any hedgerow removal, including trees within hedgerows, is limited where possible, particularly where removal is for temporary works.

4.1.9 To reduce the potential of severing commuting routes, gaps in hedgerows required for removal for access during construction is encouraged in place of complete hedgerow removal. These gaps should be limited to the smallest length possible, and should be no more than 10 metres wide. This aims to reduce the potential for severance of commuting lines. With gaps wider than 10 meters known to increase the likelihood of bats ceasing to use hedgerows.

4.1.10 Any gaps created in hedgerows should be replanted as soon as possible, in line with guidance provided in section 5.2.

4.1.11 Temporary mitigation to reduce the severance effect of hedgerow removal is also recommended in the form of dead hedging. Piles of branches and twigs should be arranged to form a barrier across any gaps in the hedgerow. These can be created using materials from vegetation clearance, and can be used across gaps as replanting is establishing. In addition to this, these materials can be made into solid structures, and placed across gaps in the hedgerow at night to ensure hedgerows remain connected for bats throughout construction.

Increased disturbance

4.1.12 In order to reduce any impact from increased levels of disturbance from light, noise and vibration throughout construction and during operation of the scheme, it is recommended that a 10 metre buffer zone is observed around hedgerows and woodland, and where roosts have been identified.

4.1.13 This is particularly the case around the *Myotis sp.* roost in tree F008 at land parcel WS75059, and its connecting treeline. In this case a 10 metre buffer zone should be regarded as the absolute minimum buffer area, extending this wherever possible.

4.1.14 Night time working during construction should also be avoided where possible, to decrease the requirement for artificial lighting, and reduce the impact of increase noise and vibration on foraging and commuting bats.

4.1.15 In addition to this, it is recommended that a wildlife sensitive lighting strategy is adopted through construction and operation to further reduce the potential impact of artificial lighting on bats.

4.1.16 Any lighting scheme is required to take account of the following standards:

- *Guidance Note for the Reduction of Obtrusive Lighting*[13]
- *Bats and Lighting in the UK*[14]
- BS12464 Part 2, *Lighting of Work Places: Outdoor Work Places*[15]
- *Lighting Guidance 6: The Exterior Environment*[16]

4.1.17 It is recommended that lighting levels across the site are minimised using the following recommendations:

- Minimise the upward spill of lights with the use of directional luminaries, shield, louvres and baffles. This would direct light to where it is required, and prevent unnecessary light spill into the surrounding environment, reducing the impact on commuting corridors and foraging areas.
- Use Light Emitting Diodes (LEDs) in preference to mercury or metal halide lamps, with the use of glass glazing preferred where possible.
- Consider the timings of when lighting is required on site. Where possible lighting the site in the hours immediately prior to dawn and after dusk should be avoided. Where the site is not in use (such as at night), lighting

[13] Lighting Professionals (2011), *Guidance Notes for the Reduction of Obtrusive Light* GN01:2011
[14] Bat Conservation Trust (2009). *Bats and Lighting in the UK*: Bats and the Built Environment Series, Version 3. London.
[15] British Standards Institute (2014). BS EN 12464-2: 2014 *Light and Lighting – Lighting of Workplaces – Part 2: Outdoor Work Places*. London. British Standards Institution.
[16] Chartered Institution of Building Services Engineers (2016) *Lighting Guidance 6: The Exterior Environment*

should be avoided. Where there is the requirement for areas to be lit at night, this should be kept to levels as low as possible, but within the confines of legal requirements.

4.1.18 The proposed lighting design for the scheme has been reviewed, and although lighting across the scheme is to be designed to limit the amount of artificial illumination as much as possible, careful consideration is required to the proposed lighting in the following areas:

- Camel Cross Junction – there is a proposed increase in lighting levels in this area. Lesser horseshoe and barbastelle have been recorded in habitats adjacent to the junction, in addition to activity from more common species. It is recommended where possible that lighting is reduced both in the number of lamps and intensity. Directional lighting should also be used to ensure no light spill into the adjacent habitats.
- Vale Farm Link – there is a proposed increase in the lighting levels south of Pepper Hill House, with 2 roosts identified in buildings here. It is recommended that where possible lighting is reduced both in the number of lamps and intensity of the bulbs used. Directional lighting should also be used to ensure no light spill into adjacent habitats, particularly north, towards Pepper Hill House.
- Hazlegrove Junction – between chainage 4800.00 and 4900.00 the scheme runs south of the hedgerow east of Pepper Hill Copse that runs north to south. This hedgerow has been noted for the levels of bat foraging and commuting activity. It is recommended that lighting is reduced in number of lamps and intensity of the bulbs. Directional lighting should also be used to prevent light spill into surrounding habitats, particularly the hedgerow to the north.

4.1.19 To further reduce the impact of noise on sensitive foraging, commuting and roosting habitats, it is also recommended that planting and earthworks are used to act as natural acoustic barriers, between the road and these habitats where noise is likely to significantly increase as a result of operation of the scheme. This will reduce the potential for roost abandonment and also limit the degradation of habitat suitability for foraging, roosting and commuting use adjacent to the sites.

4.1.20 Where planting may take time to establish, or works are proposed adjacent to foraging, commuting and roosting habitats prior to earthworks, it is recommended that temporary noise barriers are constructed. This aims to reduce the impact of noise on bats while these mitigation measures are installed and establish to their full capacity to reduce noise impacts.

4.2 Enhancements

Bat roosts

4.2.1 Large numbers of trees and extensive areas of hedgerows containing trees are due to be removed permanently as part of habitat clearance works to facilitate the scheme.

4.2.2 Whilst none of the affected trees have been found to support bat roosts, a number of them do support features which could be used by roosting bats, and the removal of these features means there is a reduced number of roosting opportunities for bats in the future. In order to ensure that the scheme has a positive contribution towards local bat populations, it is recommended that a minimum of 220 bat boxes are installed within in suitable habitats adjacent to the scheme.

4.2.3 These should be installed on semi-mature to mature trees, located adjacent to or within established hedgerow, treelines and woodland blocks, ensuring connectivity to the wider environment. Boxes should also be located close to suitable foraging habitat such as woodland, calcareous and neural grassland and riparian habitats.

4.2.4 Boxes should be installed, ideally with three per tree, at varying heights a minimum of 2 metres above the ground, and at varying orientations. The majority of boxes should be installed between south-westerly and south-easterly orientations, with the occasional box facing north to provide an array of conditions throughout the year.

4.2.5 A mixture of designs should also be installed to accommodate for a variety of bat species, with roost boxes aiming to support summer transitional roosts, maternity roosts and hibernation roosts. This would ensure that bats are supported through the year and at all life stages. Recommended designs include:

- 1FF Schwegler bat box
- 2F Schwegler bat box with double front panel
- Habibat 017 external access box
- Habibat triple chambered access box
- 1FW Schwegler bat hibernation box
- Improved Roost – maternity bat box (requires installation on buildings)

4.2.6 It is recommended that bat boxes are subject to monitoring once a year for at least the first 5 years of operation. This would both identify where boxes may need to be replaced, in addition to allow for assessment of the update of boxes by roosting bats. This would help to increase the data set and knowledge base

of bat distribution within the area. All records should be submitted to the local record centre.

Habitat enhancements

Hedgerows

4.2.7 Large areas of hedgerow are proposed to be removed in order to facilitate the construction of the scheme. Where these are removed for temporary works, hedgerows should be reinstated, with species-rich native hedge and tree species. Any gaps created to provide temporary access through the hedgerow during construction should also be reinstated, ensuring that species that are planted are native, and complement those already recorded within that hedgerow.

4.2.8 Where hedgerows are to be removed, it is also recommended that adjacent and connecting habitats are protected from any works associated with this. Enhancements should also be made to adjacent hedgerows where possible, where the adjoining hedgerow is to be permanently lost. This would contribute towards ensuring connections provided by the removed hedgerow into the wider environment are not permanently lost, ensuring bat commuting routes are maintained throughout construction and operation.

4.2.9 This is particularly important at the proposed Vale Farm link, as roosts in buildings within ST84283 are at risk of becoming isolated due to hedgerow removal to the north, west and east. It is recommended that hedgerows along the existing track between Pepper Hill Cottage and Rewber Brake are enhanced to compensate for the loss of potential commuting features at the Vale Farm Link. This would also need to be planted early in the programme, prior to severance of links to the north and east, to ensure there are linear features available for bats within the roost, commuting to their foraging grounds. In addition to this compensatory planting should be implemented north and south of Vale Farm Link to prevent complete severance. Planting should include trees along the road at points where the removed hedgerows cross the road to encourage any bats which may cross to do so at a height that will reduce the risk of vehicle collision.

4.2.10 Compensatory planting proposed as part of the landscaping works on site (6,243.06 metres of native hedgerow and 4,381.73 metres of native hedgerow with trees) should aim to result in an increase in total hedgerow area within the survey area, or where there is a loss of total length of hedgerow, ensure that hedgerows are enhanced, replacing species-poor hedgerows with species-rich hedgerows. This would mean the quality of hedgerows within the survey area would increase as a result of the scheme. It should also aim to increase the quality of hedgerows, enhancing existing species-poor and gappy hedgerows

creating specie-rich connected hedgerows to further join up habitats, and create more robust green corridors and networks into the wider environment.

4.2.11 In addition to reinstatement, any hedgerows or areas of hedgerow that become degraded during construction should be replanted with native species of known value to wildlife.

4.2.12 Hedgerows connecting to roost such as that in tree F008 at WS75059 should be protected throughout construction with appropriate root protection zones to ensure that this roost does not become isolated from foraging grounds as a result of the removal of commuting corridors.

Grassland

4.2.13 To compensate for the loss of suitable foraging habitats within the survey area, it is recommended that wildflower grassland is planted, comprising of species also associated with calcareous and neutral grassland.

4.2.14 It is proposed that 49.01 hectares of wildflower and species rich grassland would be planted as compensatory grassland planting for habitat lost during construction and operation of the scheme.

4.2.15 Compensatory planting should be of a minimum area equal to the area to be lost as a result of the scheme. However, it is recommended that areas in excess of those to be lost are planted. This would work towards a net gain in the ecological value of habitats within the survey area, and also ensure that habitats lost are replaced where not all planting successfully establishes.

Woodland

4.2.16 In order to facilitate construction of the scheme, areas of broadleaved plantation woodland, broadleaved semi-natural woodland and broadleaved parkland within the survey area would likely be removed. Woodland habitats are noted as being of particular importance to roosting and foraging bats, and are also used as landscape features for commuting bats.

4.2.17 It is proposed that 4.57 hectares of woodland and 22.43 hectares of native trees and scrub are to be planted to compensate for the loss of these habitats as a result of construction and operation of the scheme.

4.2.18 It has been recommended that compensatory woodland planting is incorporated in to the Environmental Masterplan (Figure 2.8 of the Environmental Statement, Volume 6.2), with at least 1 tree planted for every 1 removed, with more incorporated into the design where possible. These trees should be native and of varying ages as trees take decades to mature, and immature trees do not provide the same suitability for bats as semi-mature and mature trees. Planting

of older specimens would ensure that trees of a range of ages are available for bat use across the scheme, ensuring more robust compensation in the future.

Hop overs

4.2.19 The installation of bat hop overs has been recommended to reduce the impact of hedgerow severance where this cannot be avoided, and to reduce the impact of temporary loss or severance of hedgerows during construction. In order to reduce the impact of the scheme particularly with regards to collisions of vehicles, it is important that early planting is adopted as part of the landscape strategy.

4.2.20 Temporary hop overs are recommended where hedgerows are to be subject to removal of sections of hedge. In line with recommendations gaps should be no more than 10 meters in length. In this case, hop overs can be created using sizeable trees placed in tubs, no more than 10 meters apart at the start and end of any gaps. Multiple trees can be used arranged from small height trees just above hedge height to taller trees providing a gradual vertical increase in vegetation height. This is more likely to encourage bats to fly up and over the trees, avoiding vehicles passing through the gaps.

4.2.21 Permanent hop overs are recommended where the scheme is likely to sever important commuting roosts. This is particularly the case for the hedgerow approximately 220 metres east of Canegore Corner, which links to the northern soil bund vegetated with trees and edges on leading to Steart Wood. This hop over should be formed of more permanent planting, designed into the soft landscaping strategy, ensuring that the height of the hop over builds gradually to encourage bats to fly up and over the A303. In addition to this, a dense shrub layer should be planted along the verge to discourage bats from crossing the road low down, forcing them up and over the road, away from traffic. The presence of bat species known to fly through vegetation such as brown long-eared bat, greater horseshoe bat, lesser horseshoe bat, means that wooden screen/mesh is also recommended to be installed alongside the dense shrub.

4.2.22 Trees planted on the closest extent to the A303 should be the highest trees, with the highest point of each tree on either side of the road matching the other. As the scheme lies south of the current A303 at this point, with the existing road remaining as an access track, the hop over would also need to extend to ensure bats can cross over the access track. Vegetation between the existing A303 and the scheme will need to be kept a consistent height, to keep bat flight lines high, and tree planting at north of this at a consistent height along the northern boundary of the existing A303. Vegetation height should then gradually decrease to the height of the current tree and hedge planting here.

4.2.23 The hop over at the hedgerow approximately 220 metres east of Canegore Corner would be installed at the top of elevated verges, with the scheme constructed at the bottom of this verge in a false cutting. This elevated verge will further encourage bats to flight up and over the road,

4.2.24 Permanent hop overs on a smaller scale are also recommended along the Vale Farm Link, to ensure connections between roosts in buildings F001 and F002 in ST84283 and foraging habitats to the north are retained.

4.3 Monitoring

4.3.1 Although there is no EPSM licence associated with the scheme, the scale of it means that best practice would recommend monitoring over the first 5 years of operation. Recommended monitoring for the scheme comprises:

- annual monitoring of bat boxes and the bat house, recording use and evidence of use and submitting records to the local record centre
- repeats of crossing point surveys at locations which were subject to severance as part of the final design 5 years post construction
- repeats of landscape scale transects 5 years post construction

5 Conclusion

5.1.1 Habitats within the survey area have been identified as supporting 12 species of bat, both common, widespread and rare. Species recorded during surveys comprised:

- Barbastelle
- Brown long-eared bat
- Common pipistrelle
- Greater horseshoe bat
- Leisler's bat
- Lesser horseshoe bat
- *Myotis sp*
- Nathusius' pipistrelle
- Noctule
- Serotine
- Soprano pipistrelle
- Whiskered bat

Roosts

5.1.2 Despite the number of confirmed and potential roosts recorded within the survey area, only 1 is likely to be impacted directly by the scheme, with this roost currently recorded as being inactive and not used by bats. Consequently, where recommendation for mitigation and enhancement described in section 5 are implemented, it is unlikely that the scheme would have a significant impact on this potential roost. However, it should be noted, that where re-inspections or further surveys identify the building as an active roost once more, an EPSM licence may be required to be sought from Natural England. However, currently as no roosts would be damaged or destroyed or otherwise significantly impacted, an EPSM licence is not required for the scheme.

5.1.3 The majority of roosts identified belonged to small numbers of common bats, however, 1 tree roost was recorded as being used by 38 *Myotis sp.* individuals. Although this falls within an area proposed for temporary works, it is likely that this would comprise plant and soil storage only. Where recommendations for mitigation and enhancement described in section 5 are implemented, it is unlikely that the scheme would have a significant impact on this potential roost.

5.1.4 Although unlikely to be directly impacted by the scheme, the location of the 2 roosts in building F001 and F002 on land parcel ST84283, are located between the proposed widening works to the existing A303 and the construction of the Vale Farm Link. This would result in the roosts becoming surrounded by roads, potentially severing commuting routes north. However, where recommendations for mitigation and enhancement described in section 5 are implemented, and

compensatory planting establishes successfully, it is unlikely that the scheme will have a significant impact on this potential roost.

5.1.5 The roost in tree F039 at ST153085 is located east of the proposed Hazlegrove Junction works. This tree would be retained however, it is within an area proposed for existing works. Although close to the proposed works at this junction, where mitigation and enhancement measures described in section 5 are implemented, it is unlikely that there would be a significant effect on this roost.

5.1.6 All other roosts recorded within the survey area have been determined to be a sufficient distance away from any works, or are already subject to levels of disturbance associated with a busy road, that they are unlikely to be impacted during construction or operation of the scheme.

5.1.7 Overall, where all mitigation and enhancement measures detailed within this assessment are implemented, the scheme would be unlikely to have permanent significant impacts on roosting bats.

Foraging habitat

5.1.8 The most significant levels of foraging were identified over the fields at the entrance to Hazlegrove School, with activity recorded from a number of common bat species. The majority of this area is proposed to be the site of the Hazlegrove Junction, resulting in habitat clearance of woodland and grassland suitable for bats.

5.1.9 Large numbers of foraging bats were also recorded along the hedgerow extending east to west from the south-east corner of Pepper Hill Copse and the adjoining hedgerow which runs from north to south. These important habitats are located immediately adjacent to the proposed A303 widening works, with the southern extent of the hedgerow running north to south within the footprint of the proposed widening works.

5.1.10 A biodiversity compensation area is currently proposed north of the Hazlegrove Junction, which lies within and adjacent to these areas noted as important to foraging bats. Where habitats within compensation area replicate and enhance the habitats which would be lost as a result of the Hazlegrove Junction and the adjacent A303 widening works, there would be unlikely to be a significant impact on foraging bats in these areas.

5.1.11 The fields between Slate Lane and the existing A303 were also noted as being of importance to foraging bats with large number of common species noted in this area. These areas would be likely to be directly impacted by construction of the Downhead Junction Link. However, this area is linked to another biodiversity compensation area by Slate Lane. Where this is enhanced for foraging bats,

and the habitats adjacent to the Downhead Junction Link and the A303 are reinstated, it would be unlikely that the scheme would have significant impacts on species foraging in this area.

5.1.12 Overall, where all mitigation and enhancement measures detailed within this assessment are implemented. The scheme would be unlikely to have permanent significant impacts on foraging bats.

5.1.13 There would be likely to be Slight Adverse effects in the short term while the scheme is being constructed. However, foraging habitats to be impacted by the scheme are located adjacent to and are connect to other suitable habitats for foraging bats in the wider environment. Due to the rural nature of the location of the scheme, it would be likely that surrounding habitats can support foraging bat populations over the short term, while the scheme is being constructed and compensatory planting is establishing.

Commuting routes

5.1.14 A number of important commuting routes were identified for both common and rare species within the survey area. Hedgerows adjacent to the existing A303 were noted as supporting commuting routes, particularly south of the road. These habitats would be lost as a result of the proposed widening of the A303. However, the scheme incorporates replacement planting of hedgerows of the same or greater quality and in the same locations or directly linked to the locations of hedgerows to be removed. Additionally, dead hedging will be incorporated in the interim while compensatory planting is establishing. Therefore, the impact on bats will be temporary, which reduces the likelihood of significance of impacts on commuting bats using these hedgerows

5.1.15 The track between Camel Hill Farm and Rewber Brake, was noted for the levels of commuting activity from common species. The proposed haul road runs from east to west through this area. However, where mitigation and enhancement recommendations detailed within section 5 are implemented, it would be unlikely that this will significantly impact commuting bats using this feature.

5.1.16 The proposed haul route also runs south to the track between Steart Hill and Steart Wood. However, current proposals indicate that this is far enough from the track that it would be unlikely there would be any significant impact on commuting bats along it. However, in running south of this track, the haul route would run through the proposed soil bund vegetated with trees and hedge species, which is directly north of the hedgerow approximately 220 metres east of Canegore Corner, which has been noted for its high levels of activity from commuting common and rare species of bat. Both hedgerows have been noted as being of significant importance to common and rare species of bat, potentially connecting habitats north and south of the scheme, with bats

crossing the existing A303 between them. Where recommendations detailed in section 5 are implemented and adhered to, there would be unlikely to be a significant impact on commuting bats in this area. However, it should be noted that this is most likely one of the most significant commuting corridors within the scheme which would be altered as a result of construction and operation.

5.1.17 A number of other important commuting corridors were identified within the survey area as described in section 3. However, these have been assessed as being of a sufficient distance away from the scheme that they would be unlikely to be impacted by it.

5.1.18 Overall, where all mitigation and enhancement measures detailed within this assessment are implemented, the scheme would be unlikely to have permanent significant impacts on commuting bats.

Overall effect of the scheme on bats

5.1.19 Taking into consideration the intended mitigation for the scheme, it is likely that there would be a Slight to Moderate Adverse effect on bats as a result of construction, and a Slight Adverse effect of operation of the scheme on bats.

Appendix A: Schedule 41 bat species

Table A.1: Bat species listed under Schedule 41 and their specific species actions

Species	Priority Group	Action Priority	Action
Barbastelle	1 – global concern	High	Ensure species is considered in agri-environment, assisting at a farm scale to ensure hedgerow, small linear wood and field margin creation, persisting in the landscape and maintaining landscape level connectivity and insect biodiversity. Improvements to small farm woodlands and wet meadows, blocking land drains may also encourage retention of trees used for roosting.
			Continuation and expansion of research into more detailed habitat requirements by this species, including the impact of regional differences and management needs.
			Continued monitoring through the National Bat Monitoring Programme (NBMP) to monitor population trends of this species.
			Protect the condition of priority wetland and woodland habitats, to contribute towards provision of sufficient good quality trees for roosting and insect rich foraging grounds. Ensure the protection and preservation of mature woodland and improve the conditions of young woodland specifically for this species.
			Help buffer core woodland areas with the encouragement of woodland expansion, increasing flight-line connectivity between woodland areas and other foraging habitats at a landscape level.
Bechstein's bat	1 – global concern	High	Ensure sufficient roosting and foraging habitats are available through woodland habitat management meeting the requirements of this species, such as encouragement of continuous cover canopy and a well-developed understorey.
			Ensure the protection and monitoring of maternity colonies, hibernation sites and swarming sites, and designation of appropriate woodland and underground sites identified through survey.
			Continuation and expansion of research into more detailed habitat requirements by this species, including the impact of regional differences and management needs.
			Expand woodlands around their core areas, reconnecting fragmented woodlands with treeline and hedgerow planting, to allow recolonisation of previously populated areas and aid seasonal dispersal for mating and hibernating.
		Medium	Provide advice to woodland managers and arboriculturalists regarding the retention of roost trees, and management of areas suitable for foraging. Discouragement of felling and where necessary mitigating through staged felling.
			Wider woodland policy such as requirement for bat surveys and mitigation agreement prior to the granting of felling licences in certain woodland types, identified as having the potential to support Bechstein's bat, has been identified as potentially assisting this species.
			Ensure the improvement and retention of the condition of woodlands. This is also likely to benefit other bat species which roost in trees and woodlands.
		High	Continued monitoring through NBMP to monitor population trends of this species. In addition to this the recording of roost used by

Species	Priority Group	Action Priority	Action
Brown long-eared bat	3 – national concern		species should be promoted by local bat groups, local record centres and consultants through appropriate information sharing, and by species conservation plans.
			The best roosts (identified as those supporting the largest colonies) should be considered for designation as Sites of Special Scientific Interest (SSSIs).
			Critical resources should be protected at landscape level, including all types of roost and important foraging grounds and commuting routes. For this the provision of appropriate landscape features are required, including habitats not classified as UK priority habitats but are important foraging resources and for connectivity.
			Improvement of mitigation in barns and lofts targeting brown long eared bat, by developing designs specifically for this species previously found to be successful (for example. incorporation of adequate roof space/use of the correct roofing material to provide an environment with the desired thermal characteristics).
		Medium	Ensure this species is considered in agri-environment schemes and woodland policy, with improvements in farmland, woodland edges, hedgerow, small farm woodlands and mixed woodland. In addition to retaining and protecting older trees for roosts as part of land-use policies>
			Consider the impacts of light pollution on this species.
			Consideration of the effectiveness of different conservation management on brown long-eared bat, with detailed understanding of priority habitats. Better guidance should be produced for land managers particularly on habitat structures and features.
			Improve planning policy in relation to bat roosts in buildings, particularly for this species, reducing levels of exclusion and roost destruction through tighter planning control and legal enforcement. In addition to ensuring building regulations to consider bats which roost in buildings.
			Reducing habitats fragmentation and increasing habitat connectivity between foraging grounds and roosts, particularly between woodlands, tree lines and high hedgerows.
Greater horseshoe bat	2 – European concern	High	Continue with monitoring through the NBMP activity count and hibernation survey. This should focus on male to female ratios within roosts, and consider new colonies will form with small numbers of bats which are often overlooked.
			Continue the protection of designated sites and known roosts (such as building and underground) notifying local authorities and other relevant bodies of records. Ensuring the management of sites is appropriate to the species needs, with the designation of new sites where appropriate.
			Encouragement of appropriate habitat management particularly within 4km of maternity roosts of woodlands, wood pasture, pasture and connecting hedgerows, with these habitats representing critical foraging areas for pregnant and lactating bats, and their offspring. Landscape suitable for the survival of this species throughout its range should be protected through woodland policy, agri-environment schemes and planning policy in respect to building and underground sites.

Species	Priority Group	Action Priority	Action
		Medium	Research into climate change adjustments in the phenology of invertebrate prey populations and the impact of the decline of these populations, particularly moths, dung beetle's cockchafers and tipulids.
			Ensure advice and good practice information is offered on habitat management and relevant grants schemes.
			Expand priority habitats used for foraging and commuting, and close to maternity colonise, enhancing these to increase insect prey populations. Increase the extent of suitably managed woodland and connective hedgerows, particularly those linking foraging areas and maternity sites. It should be noted as a landscape species greater horseshoe may use habitats not classified with priority status, so action should not be restricted to priority habitats.
Lesser horseshoe bat	2 - European concern	High	Research to improve understanding of which priority and non-priority habitats are used by lesser horseshoe bat. This should aim to provide Habitat Groups with suggested targets for increase in area and condition of habitats of importance for this species, considering conservation at a landscape level. This should also contribute towards future success criteria for lesser horseshoe.
			Maintain monitoring of designated sites and known roosts through the NBMP and provision of records to appropriate authorities.
			Consideration of this species in planning, woodland and agri-environment policy to protect roosts and retain and create suitable habitat and landscape features throughout the range of this species.
			Ensure protection of all known roosts via implementation of legislation and policy and implementation of appropriate mitigation and monitoring of effectiveness and compliance.
			Ensure a landscape approach is undertaken when considering the conservation of this species and ensuring that habitat such as woodland foraging habitat, old hedgerows and treelines, and roosting sites are increased and managed appropriately for the needs of lesser horseshoe, improving connectivity between these.
		Medium	Priority and other important habitats close to roosts (including maternity, hibernation mating and transitory roosts), used for commuting and foraging should be improved and expanded to maximise insect prey density. Non-priority habitats should be managed in addition to priority habitats as this species utilised many habitats.
			Ensure that site management is appropriate to the needs of lesser horseshoe and there is consideration of the importance of a landscape approach to the conservation of this species. Cross-sector conservation should be implements to address issues such as habitat fragmentation, for example, with the adoption of the Batscapes concept.
Noctule	3 – national concern	High	Avoid conflict with the requirements of H&S policy with regard to mature trees and noctule roosts, through collaborative working between bat workers, H&S inspectors and arboriculturalists.
			Enhance existing monitoring schemes via the NBMP to provide long term roost population trends. Surveys for roosts throughout the noctule range are also required to better understand the distribution of this species.

Species	Priority Group	Action Priority	Action
			All roosts must be proactively protected through measures such as accurate recording on local and national schemes and local authority tree records so they are flagged up during planning searches and tree safety routines. Mitigation for loss of roosts needs to be effective to maintain populations. Surveys should also be undertaken before tree-felling, to look for roosts and potential roosts.
			High flying species such as noctule should be considered in policy relating to wind turbine developments.
			Ensure that the requirements of this species are considered in woodland, windfarm, agri-environment, water quality, tree protection (including H&S considerations) policy. Older trees should be retained and protected for noctule roosts, with this included in land-use policies (particularly planning and woodland).
		Medium	There should be a focus on woodland and lowland agricultural habitats at the landscape level when considering habitat improvements. Although noctule are a mosaic species, increasing the quality of existing habitats such as insect-rich wetlands may also help noctule.
			Improve the management of urban, suburban, rural, woodland and riverine landscapes for insect populations and roost protection.
			Consider how climate change may results in a range shift for noctule in relevant policy.
			Further research should be conducted into understanding how this species uses priority habitats and what ones are imperative to them, the effects of climate change, and impacts of windfarms. A greater understanding is also required of types of roost used by this species.
			The designation of woodlands which encompass several tree roosts used by a colony should be considered. Good foraging areas which could be subject to specific action for improvements should also be identified.
Soprano pipistrelle	3 – national concern	High	Ensure the provision of on-going free advice, with this species often roosting in houses, and forming the largest colonies in buildings in the UK. Appropriate advice and support are required to find solutions for people living and using buildings where roost exist to protect this species and manage issues associated with large roosts such as noise and smell.
			Continuation of population monitoring via field survey and colony count surveys with the NBMP, ensuring on-going national co-ordination, regional training and local volunteer engagement.
			Ensure the protection of known roosts through the implementation of legislation and policy. Surveys should be undertaken to identify new roosts and advice on proposed works and development should be provided through education and volunteer networks in addition to the private consultancy sector. Proportionate and appropriate mitigation must be implemented where required, accompanied by monitoring of effectiveness and compliance.
			Undertake research to understand the effectiveness of mitigation proposed on specific management recommendations. This should aim to provide habitat groups with target suggestions to increase

Species	Priority Group	Action Priority	Action
			the extend and quality of habitat for this species and contribute towards future success criteria for soprano pipistrelle.
			Promote the improvement, expansions and creation of key habitats for this species, including wetlands, and features such as hedgerows and woodland edges, ensuring the provision of maximal foraging opportunities. The landscape approach to conservation of this species should be considered, with this species using additional habitats to those listed previously and the delivery of conservation actions for soprano pipistrelle only likely to be achieved when considering other habitats.
			Ensure the needs of this species are considered in agri-environment schemes, planning, wetland creation, wind farm and water quality policy. The impacts of climate change on this species should also be considered in policy making, such as how the drying up of wetlands could impact this riparian associated species.
		Medium	Consider designating larger roosts as SSSI's.
			Consider ensuring the biggest roosts are notified and protected.

Appendix B: Records returned from data search

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KEY

- HISTORIC WHISKERED BAT ROOST
- HISTORIC PIPSTRELLE SPECIES ROOST



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: HISTORIC ROOSTS

Drawing Status: Published - DEFINITION

Suitability: A3

Scale	Designed	Drawn	Checked	Approved
NTS	KH	ER	VC	ER

Original Size	Date	Date	Date	Date
A1	JULY 2018	JULY 2018	JULY 2018	JULY 2018

Drawing Number: HE PIN | Originator | Volume

HE551507 - MMSJV - EBD -

Location | Type | Role | Number

000 - DR - LB - 0068

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Appendix C: Bat survey methods memo

MOTT MACDONALD

Subject	Ecology Surveys
To	Julia Barrett
From	Simon Mason
Our reference	Bat Survey Methods
Office	Southampton
Date	02.03.2017
Your reference	A303 Sparkford to Ilchester & A358 Taunton to Southfields

Memorandum

This memo outlines the proposed bat survey approach for two Highways England Road Improvement Schemes (RIS), A303 Sparkford to Ilchester and A358 Taunton to Southfields. **Appendix A** provides an outline of these two schemes. The assessment of both of these schemes are being undertaken under a Development Consent Order (DCO), which is due to be submitted in May 2018. Several route options are currently under consideration for both schemes. At the time of writing, it is understood that the Preferred Route Option (PRO) announcement (Project Control Framework (PCF) Stage 3) for both schemes will be during Autumn 2017. An emerging preferred route option will be identified in July 2017.

The aim of this memo is to provide a platform for agreeing an approach to survey, which is acceptable to all parties involved, and which can be included in a Statement of Common Ground to facilitate the Development Consent Order (DCO) application process.

Background

Highways England are currently proposing to undertake a number of major Road Improvement Schemes of which the A303 and A358 are two schemes which Mott MacDonald are currently working on. Other schemes are currently being assessed by other consultancies and have been subject to some initial consultation with Natural England. To ensure a consistent approach is undertaken, Mott MacDonald are seeking to align the proposed survey effort with the agreed approach with other HE RIS Schemes of a similar scale.

WSP/Parsons Brinkerhoff are currently working on the A30 Chiverton to Carland Cross dualling scheme in Cornwall. As part of their survey planning they produced a memo[1] which outlined their proposed approach to undertaking bat surveys to assess the impacts of the scheme. The A30 Chiverton to Carland Cross memo provided an assessment of various survey methods including standard methods outlined within the Bat Conservation Trust 2016 survey guidelines[2], together with the consideration of methods outlined within recently published research funded by Defra[3]. This memo was sent to Natural England (NE) on the 13th December 2016. Katherine Walsh, Natural England Senior Specialist Mammals, provided a response to this memo on the 26th January 2017. A copy of this response is included in **Appendix B** of this memo.

Summary of Natural England's Response to A30 Bat Survey Memo

WSP/Parsons Brinkerhoff (WSP/PB) had proposed to omit the Landscape Scale transects as outlined within the 2015 DEFRA study from the proposed A30 survey approach. However, NE confirmed (having consulted John Altringham)

[1] WSP | Parsons Brinckerhoff 1st September 2016 - A30 Chiverton to Carland Cross Bat Survey Approach, v2
[2] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.
[3] Berthinussen & Altringham (2015) 'Development of a cost-effective method for monitoring the effectiveness of mitigation for bats crossing linear transport infrastructure'

that the landscape scale transects were required and important for enabling monitoring of future impacts on the bat population.

> *'by not including the transect methodology, the proposed survey design does not allow for a methodology that is repeatable i.e. it does not establish a baseline by which the bat population can be assessed. At a landscape scale the proposed survey design will not be able to statistically assess whether bat populations have remained stable, increased, decreased or if bat diversity has been altered to any degree by this scheme. Whilst, the methodology should be suitable for identifying crossing points, it won't provide a baseline by which to effectively measure the success or otherwise of any mitigation.'*

Natural England's response confirmed that they are happy with WSP/PB's approach to standard roost and activity surveys which are based on the methods outlined within the BCT survey guidelines.

> *'Your existing survey methodology has/is addressing the 'other survey' requirements which are desirable for this scheme, which we welcome.'*

Proposed Bat Survey Methods for A303 and A358

Following the consultation with Natural England on the proposed survey methodology for the A30, the proposed methods outlined below for the A303 and A358 are based on the standard survey methods and effort proposed by WSP/PB which were deemed as acceptable by Natural England, together with crossing point surveys and landscape scale transects broadly in line with the methods outlined in Berthinussen & Altringham (2015). Details of the proposed survey methods are outlined below.

Preliminary Ecological Appraisal for Bats – Desk Study

The desk study will involve the collation of data from the Somerset Environmental Records Centre (SERC), and MAGIC together with a review of aerial photography and ordnance survey mapping.

The following search areas will be used for the desk study:

- 30 km from the scheme options for SACs designated for bats (specifically in relation to the Assessment of Implications on European Sites);
- 10 km from the scheme options for bat records;
- 10 km from the scheme options for bat licensing information (obtained from MAGIC); and
- Historic mapping will be used to help identify the presence of any underground sites (e.g. mine shafts) within 100 m of the scheme options .

These search areas are based on published guidance, consideration of core sustenance zones (CSZ's) for bats likely to be impacted, and initial consideration of the scheme's zone of influence (ZoI) on bats. The wider 10 km search area will be used to provide context to the data obtained in closer proximity to the scheme.

The desk study will provide context in the EcIA regarding the species of conservation importance recorded in the zone of influence for the scheme and identify any significant habitats of note for focussing survey effort.

Preliminary Ecological Appraisal for Bats – Scoping Walkover

An extended phase 1 habitat survey was undertaken for both the A303 and A358 in March 2016. This walkover survey covered the various route options, undertaking an initial assessment of potential roosting, commuting and foraging habitats. The extended phase 1 survey covered a broad area up to 250-500m from the proposed route options. The aim of the initial scoping walkover was to determine the suitability of the sites for bats, to assess what further bat surveys will be needed and how those surveys should safely be carried out.

Preliminary Roost Inspection Surveys

In accordance with IAN 116/08[4], both mature trees and structures within 100 m of the proposed construction footprint will be assessed for their potential to support bat roosts. For the A303, an area of 250 m from the proposed new road centrelines is being assessed, as a proposed construction footprint is currently unknown. Given the potential presence of rare woodland bat species barbastelle and Bechstein's, the presence of tree roosting bats is considered as important a consideration as roosts within buildings and structures. Preliminary roost inspection surveys are being undertaken between February and April 2017.

Building and Structure Surveys

Building and structure (bridge) surveys on the A303 and A358 will comprise external surveys only at this stage. The surveys will conform to the methodology outlined within the BCT survey guidelines and buildings and bridges will be assessed for their suitability to support roosting bats in accordance with BCT Guidelines as summarised in Table 1. Internal inspections will be undertaken on suitable buildings following the identification of the emerging preferred route option selection for both schemes, anticipated to be July 2018. This will minimise any unnecessary disruption to homeowners who are located outside of the emerging preferred route options. Prior to the internal inspections, a precautionary assessment of roost suitability will be made, based on the external inspection survey results.

Table 1 – Bat Roost Suitability Assessment

Potential to support roosting bats	Description
Confirmed	A feature / structure within which bats are seen to be present (either live bats, or bat carcasses) or heard 'chattering' inside will be classified as a confirmed roost. In addition any feature/structure found to contain droppings during inspections will in the first instance be considered as a confirmed roost. **N.B**. In some cases it may be appropriate to revise this assessment following further survey (e.g. for buildings containing low numbers of old droppings and showing no evidence of use during emergence surveys).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

[4] Highways Agency (2008) Interim Advice Note 116/08: Nature conservation advice in relation to bats

Potential to support roosting bats	Description
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Negligible	Negligible habitat features on site likely to be used by roosting bats.

Tree Surveys – Ground Level Roost Assessment

The tree survey will include a ground level roost assessment using binoculars, a torch and endoscope to identify Potential Roosting Features (PRFs). An assessment of a trees suitability to support roosting bats will be made in accordance with BCT guidelines outlined in **Table 1**.

Tree Surveys - PRF Inspection Surveys

Following the ground level tree roost assessment, at-height Potential Roost Feature (PRF) inspection surveys will be undertaken on trees identified as having moderate or high roosting potential during the ground level tree assessment. The at-height survey will enable a more detailed inspection of PRF's to assess in more detail their likely suitability for bats and to look for evidence of bats such as live or dead bats, droppings, staining or odour. These surveys will help prevent unnecessary emergence/dawn work where features appear to be of high suitability from the ground but are actually of limited or no suitability.

Emergence/Re-entry Surveys

Buildings/Structures

The spatial extent of the building roost emergence and re-entry surveys will be based on Mott MacDonald's professional opinion and will be proportionate to the roost suitability, likely ecological importance and potential impacts. This is based on the approach being proposed on the A30 by WSP/PB. As a guide, the building roost surveys will include all structures with low, moderate, and high roosting suitability which are within the construction footprint[5], structures with moderate suitability which are within 20 m of the construction footprint, and structures with high suitability which are within 100 m of the construction footprint. These spatial extents may be extended if there are any features of potential high conservation significance, such as potential maternity

[5] Note for the A303, until a construction footprint has been defined, the potential footprint will be determined as a 150m buffer either side of the proposed centreline.

roosts of Annex II species, within the core sustenance zones of these species. Structures with negligible suitability will not be surveyed further.

The survey effort for bat emergence surveys will be based on BCT guidelines as outlined in **Table 2**.

Table 2: Minimum number of emergence & re-entry survey visits for high, moderate and low potential buildings and high and moderate potential trees

High bat roosting potential	Moderate bat roosting potential	Low bat roosting potential
Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. May to September[6]	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. May to September[7].	One survey visit. One dusk emergence or dawn re-entry survey (structures). May to August. No further surveys required (trees).

Source: Bat Surveys – Good Practice Guidelines 3nd Edition (Collins, 2016).

Surveyors are to be positioned in sufficient numbers so that all potential roost features can be seen by at least one surveyor during each survey. Evening emergence surveys are to be undertaken from 15 minutes before sunset until 1.5 to 2 hours after sunset; and dawn re-entry surveys undertaken from 1.5 to 2 hours before sunrise until 15 minutes after sunrise.

Trees

As outlined above for structure surveys, the spatial extent of the tree roost emergence and re-entry surveys will be based on Mott MacDonald's professional opinion and will be proportionate to the roost suitability, likely ecological importance and potential impacts. In accordance with BCT guidelines, trees assessed as having low roost potential will not be subject to further surveys, but where they are directly impacted will be subject to avoidance measures such as supervised soft felling. Trees with moderate suitability which are within 20 m of the construction footprint, and trees with high suitability which are within 100 m of the construction footprint will be subject to dusk emergence surveys and/or dawn re-entry surveys.

The survey effort for bat emergence surveys will be based on BCT guidelines as outlined in **Table 2**. Surveyors are to be positioned in sufficient numbers so that all potential roost features (PRF) can be seen by at least one surveyor during each survey. Evening emergence surveys are to be undertaken from 15 minutes before sunset until 1.5 to 2 hours after sunset; and dawn re-entry surveys undertaken from 1.5 to 2 hours before sunrise until 15 minutes after sunrise.

Hibernation Surveys

If the preliminary building surveys identify buildings/structures with the potential to act as bat hibernation sites, these will be surveyed by an ecologist with a Natural England licence to disturb hibernating bats. A minimum of two visits will be undertaken, one in mid-January 2018 and one in mid-February 2018. These surveys will entail the systematic search of the sites from the entrance, with the locations of any bats seen marked on a plan of the

[6] At least two of the surveys should be undertaken between May and August
[7] At least one of the surveys should be undertaken between May and August

site. In addition, static detectors will be placed within potential hibernation sites for a period of 2 weeks between January 2018 and February 2018 to monitor species present

Bat Activity Surveys – Transects

The transect surveys are designed to identify species composition and general distribution along the length of the schemes, and to inform the locations of crossing point surveys. Transects will be circular routes of c.5 km each largely following the liner route of the scheme options and the habitats likely to be impacted in the construction footprints. For the A303, a total of six transects will be surveyed. For the A358, a total of 12 transects will be surveyed.

Each transect will be surveyed at dusk once per month for 7 months April to October 2017 inclusive. In addition, each transect will be subject to a single follow-up dawn transect surveys within the same 24h period between July and August 2017. Approximately 8 point counts will be included per transect, with each transect taking approximately 3 hours to complete. The transect routes will be reversed on each visit and where possible, start points will be randomised to produce more robust data. Dusk transect surveys are to be undertaken from sunset until 2-3 hours after sunset. Dawn transects will be undertaken from 2-3 hours before sunrise until sunrise.

Due to the length of the schemes, the suitability of the foraging and commuting habitat is variable, ranging from low to high. Low value habitats include intensively farmed areas containing large arable/pastoral fields divided by heavily manged hedgerows. High value habitats include areas of broadleaved woodland, river corridors and smaller fields bordered by mature species-rich hedgerows.

To ensure survey effort is cost effective and proportional, the proposed survey effort of one survey per month (April to October) is based on the 'moderate' survey effort outlined in the BCT survey guidelines (2016)[8]. This effort is considered adequate for the assessment due to the mix of habitats present across the schemes, and given that the surveys will be supplemented by crossing point surveys which will be targeted on the higher quality habitats, and Landscape Scale Transects. Additionally, where areas of high quality broadleaved woodland are likely to be impacted on the A358, advanced survey techniques will be undertaken, including mist netting. These survey techniques will provide robust survey data to enable the assessment of the impacts of the schemes on bats.

Bat Activity Surveys – Static Automated

A total of three static detectors are to be installed for each transect route on the A303 and A358 (18 Static Sites for A303, 36 Static Sites for A358), in accordance with the specifications within the BCT guidelines (Collins 2016). Each detector will be deployed for five consecutive nights per month between April and October.

The automated detector sampling strategy will be stratified, which will allow the statistical comparison of data between paired locations. Static detectors will be deployed within a range of suitable habitats which may be directly or indirectly affected (fragmented) by the scheme options including hedgerows, riparian corridors, woodland, parkland, orchards and scrub. A random or systematic sampling strategy is not considered practical for the scheme due to landowner constraints and risk of damage to equipment if set up in the middle of arable/pastoral fields which make up much of the sites. A random or systematic sampling strategy would also be less useful in informing the crossing point surveys, which will be concentrated on linear features bisected by the scheme (as described below).

[8] The scale of transect surveys is comparable to the A30 proposal which Natural England commented *'The long transects along the length of the scheme does seem onerous and could be scaled down.'* Therefore, any increased survey effort is considered unnecessary.

Advanced Survey Techniques

Due to the potential impacts of the A358 scheme on areas of mature broadleaved woodland, including areas of ancient woodland, and due to the potential presence of Annex II species within the ZoI for the A358, including Barbastelle and Bechstein's, targeted mist netting surveys are proposed within key habitats to provide more detailed information on the status of these species within the survey area. Mist netting surveys will only be used where sufficient information cannot be determined from non-intrusive methods. Surveys will only be undertaken by appropriately licenced and experienced surveyors. A detailed methodology will be produced for each mist netting site once these targeted sites have been identified following completion of the preliminary bat assessments.

Crossing Point Surveys

A series of crossing point surveys will be undertaken in line with the methods described in Berthinussen and Altringham 2015. The surveys will be static, visual surveys designed to inform the impact assessment in relation to the fragmentation of bat foraging/ commuting habitat and direct mortality. This data will be used to inform the nature and location of required bat crossing structures and will facilitate the future monitoring of the effectiveness of any mitigation.

The crossing point survey method described in Berthinussen and Altringham 2015 requires at least six visits per location to provide a robust baseline from which to monitor the effectiveness of crossing structures. Berthinussen and Altringham conducted their surveys between June and August, however, due to the selection of emerging preferred routes for the A303 and A358 in July 2017, we are proposing to undertake the six surveys at each location following the identification of the emerging preferred routes, to minimise any unnecessary survey effort. Due to the southerly location of the site and the potential for hibernation / transitional / swarming sites in the surrounding landscape, it is considered appropriate to undertake surveys between July and September 2017. Repeated surveys will be at least 1 week apart.

The crossing point survey locations will be informed by the first three months of transect and automated survey data, and also by the results of the preliminary surveys of buildings and trees with roost potential. It is estimated that 25 crossing point surveys will be required for the A358 and 10 for the A303. This is based on a visual assessment of the habitats being severed by the schemes which are likely to be important for commuting and foraging bats, focusing on mature hedgerows with good connectivity, woodland blocks and riparian habitats which the schemes will impact.

The surveys will record bat species, numbers, flight height, direction, location, time of crossing, and any other general behaviour. The surveys will commence at sunset and will be undertaken for a minimum of 60 minutes. After 60 minutes, it is usually too dark to record visual bat movements accurately. However, if late emerging species are recorded, surveys will be extended by up to 30 minutes.

Landscape Scale Transect Surveys

Landscape scale surveys will be undertaken in line with the methods described in Berthinussen and Altringham 2015. The survey will consist of walked transects 1 km either side of and perpendicular to the proposed routes, with bat activity recorded using full spectrum bat detectors during 10 min stationary spot checks at 100 m intervals

from the route centrelines. Weather and habitat variables will also be recorded at each spot check. Ten transects will be carried out on both the A358 and A303 to ensure sufficient data to detect changes in overall bat activity. For the A358 this will include 10 independent transects (with five walked towards the road, and five walked away). Due to the smaller size of the scheme, the A303 surveys will include 5 independent transects (each walked twice, once away from and once towards the road). Each transect will be at least 500m apart. Each of the ten transects will be repeated once during the season. Surveys will commence 30 minutes after sunset, and be completed within approximately two hours. Surveys will be undertaken between July and August 2017, following the identification of the emerging preferred routes for both schemes. An equal number of transects will be selected on each side of the road and equal numbers walked towards and away from the road. Transects will be located along minor roads, bridleways or public footpaths so that they will be repeatable for future monitoring. In accordance with the survey method, data will be subject to auto species analysis using BatClassify or comparable software. Data will then be statistically analysed using the methodology outlined in Berthinussen and Altringham (2015).

Berthinussen and Altringham recommend that baseline data is collected over two survey season where possible. Due to the time constraints with the DCO Application in May 2018 it is not possible to undertake two seasons of surveys prior to the applications for each scheme. However, in accordance with the survey method, it is proposed to repeat the surveys between June and August 2018. These 2018 surveys will not inform the Environmental Statement but will be used to provide a robust baseline.

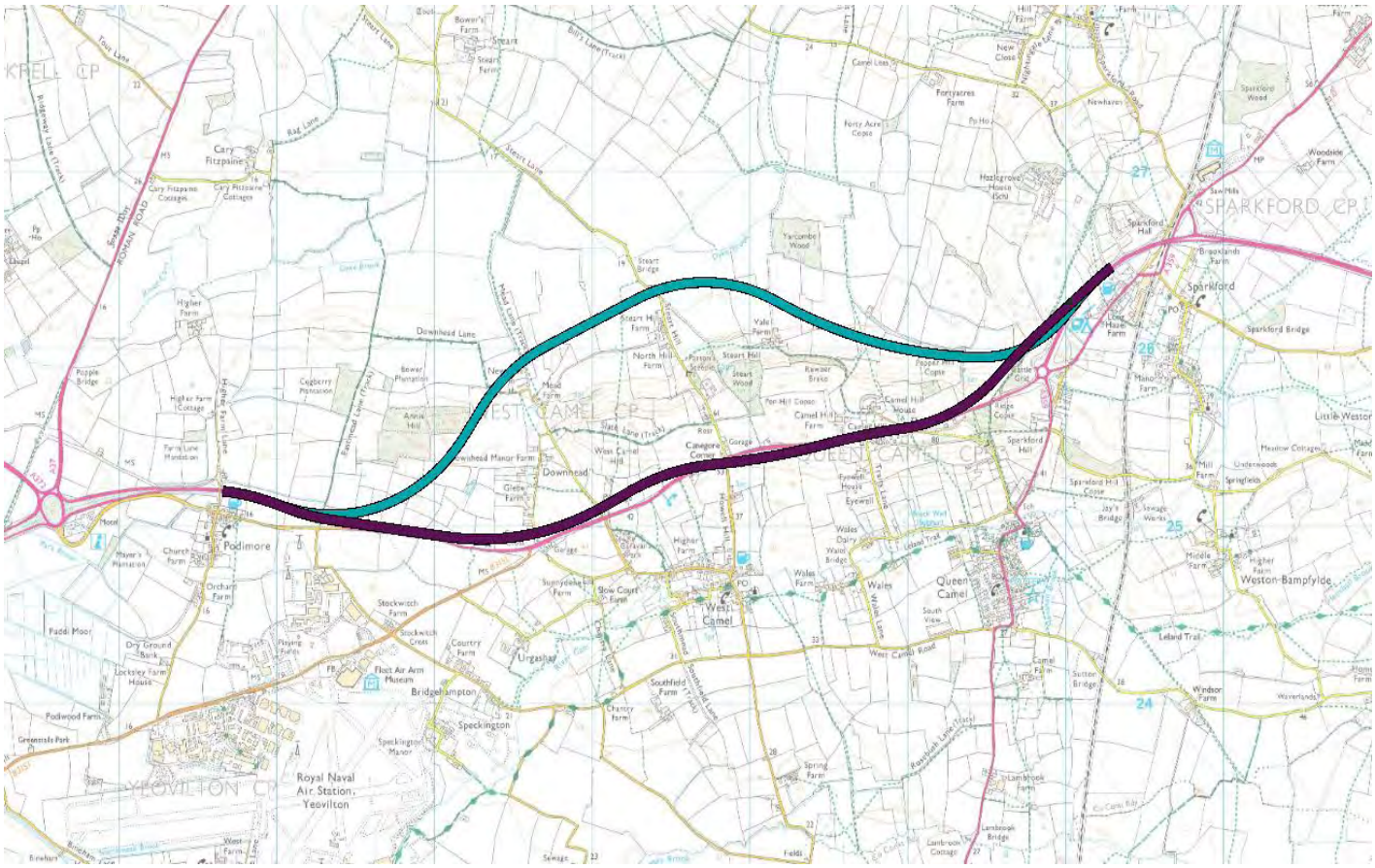
Conclusion

The above methodology is considered to provide a robust approach for assessing the impacts of the A303 and A358 schemes on bats and will provide a baseline to monitor the impacts and success of mitigation. The recommended methods are in line with both the BCT Guidelines (2016) and Berthinussen and Altringham (2015).

Appendix A – Outline of Schemes

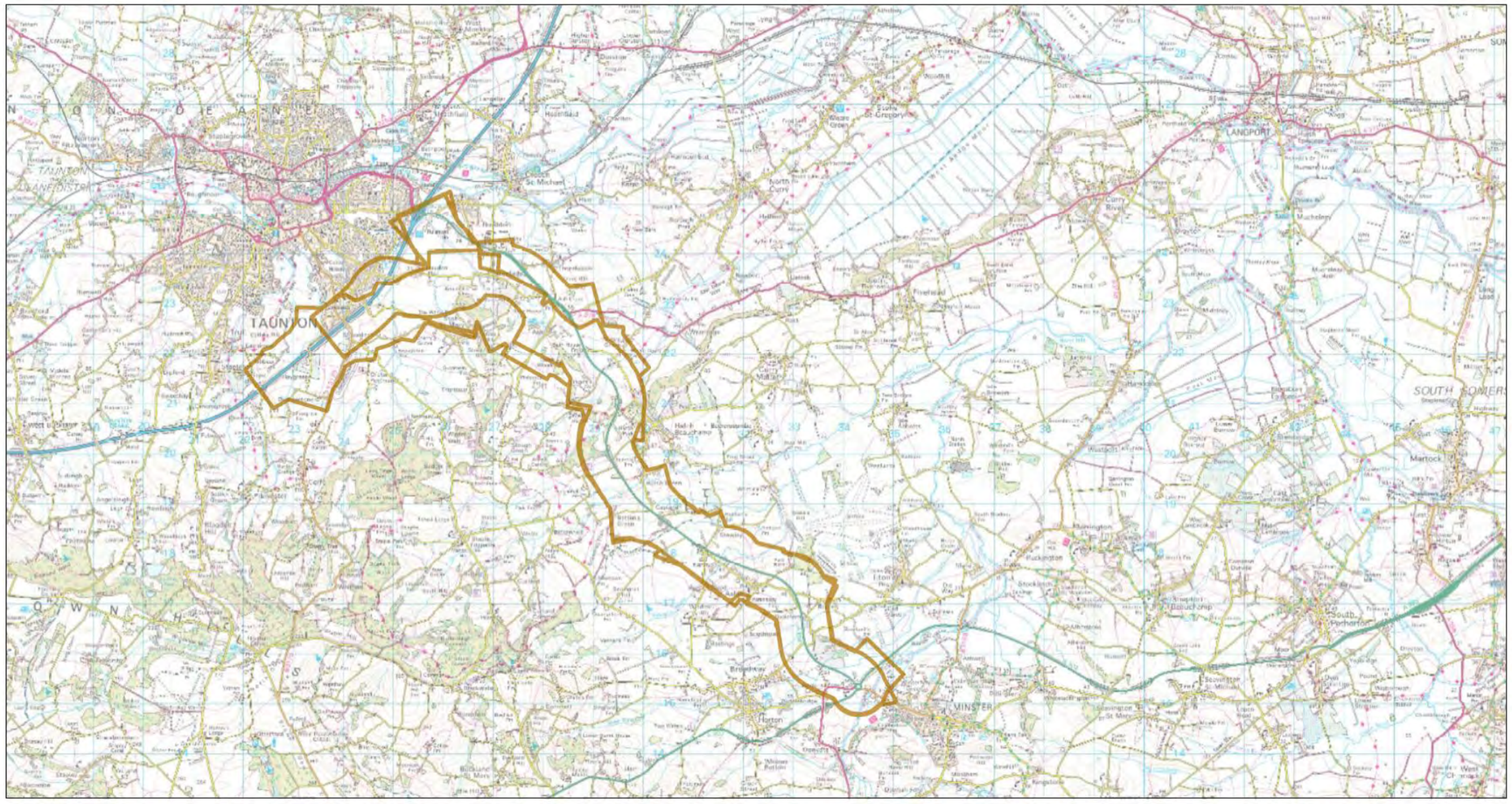
The current proposal extent of each scheme is presented in Figure 1 and 2 below.

Figure 1: A303 Route options



Route Options – Blue Option 2, Purple Option 1

Figure 2: A358 Route Buffers



March 2, 2017

1:75,000

0 0.75 1.5 3 mi

0 1.5 3 6 km

Appendix B – Natural England Response to WSP/PB A30 Survey Approach

Response to WSP/Parsons Brinckerhoff on Meeting Notes and Memo

Thank you for the opportunity to comment on the WSP/PB memo dated 1st September and meeting notes dated 3rd September describing the bat survey approach for the A30, sent to us on 13th December.

In preparing this response I have spoken to both Jean Matthews (NRW) and Professor John Altringham (Leeds University –retired) All three of us were members on the Steering Group for the Defra commissioned 'WC1060 – Development of a Cost-Effective method for monitoring the effectiveness of mitigation for bats crossing linear transport infrastructure'. Professor John Altringham was the lead researcher on the project. John does not agree with the meeting notes, which state that the landscape methodology was not to be taken forward, so maybe there was a misunderstanding, as different methodologies and research proposals were discussed at the workshop.

As noted in our previous discussions, the Defra report makes it clear that the methodology should be used in combination with existing methodology for identifying bat roosts, important foraging habitats and species which are not easy to detect, for example through use of acoustic detectors only.

Your existing survey methodology has/is addressing the 'other survey' requirements which are desirable for this scheme, which we welcome. However, by not including the transect methodology, the proposed survey design does not allow for a methodology that is repeatable i.e. it does not establish a baseline by which the bat population can be assessed. At a landscape scale the proposed survey design will not be able to statistically assess whether bat populations have remained stable, increased, decreased or if bat diversity has been altered to any degree by this scheme. Whilst, the methodology should be suitable for identifying crossing points, it won't provide a baseline by which to effectively measure the success or otherwise of any mitigation.

We would suggest that a combination of the proposed WSP/PB methodology with that stated in the WC1060 report would be advisable for this scheme. The long transect(s) along the length of the scheme does seem onerous and could be scaled down. This could then allow for the transect methodology to be incorporated in a cost-effective way.

A couple of final points of detail,:

- if statics were to be used as a replacement for people walking the transects with detectors, which is acceptable as an alternate methodology, this would require statics being placed at each of those spot check points. Collins et al (2016) states on P8 that 'this edition of the guidelines does not include specific advice in relation to road and rail schemes, although the principles of survey design and execution do apply. Berthinussen and Altringham (2015) provide information on pre and post construction surveys of linear infrastructure schemes, designed specifically to assess the effectiveness of mitigation for bats crossing them'.

We would be happy to discuss further the above points to agree a proportionate and cost effective way forward for replicable bat surveys for pre and post construction for this important road scheme, so that any measures

required to address and monitor the impacts of the scheme are based on a robust evidence base and are proportionate and cost effective.

I am free morning of 31st Jan to discuss further. I will then be on leave for 4 weeks. I look forward to hearing from you.

Yours Sincerely,

K, Walsh

Katherine Walsh (Senior Specialist – Mammals)

Appendix D: Natural England bat methodology DAS response

Date: 04 May 2017
Our ref: DAS 2747 / 212650 (A303)
DAS 2748 / 212658 (A358)

Alex Murphy and Jennifer Ogawa
Mott MacDonald Sweco (MMS) Joint Venture

By email only

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

0300 060 3900

Dear Mr Murphy and Ms Ogawa

Discretionary Advice Service (Charged Advice) DAS 2747 and 2748
Development proposal and location: A303 Sparkford to Ilchester and A358 Taunton to Southfields Road Improvement Schemes

This advice is being provided as part of Natural England's (NE) Discretionary Advice Service (DAS). MMS Joint Venture has asked Natural England to provide advice upon:

- Ecological survey methodology, principally bats
- General ecological issues affecting both schemes

This advice is provided in accordance with the Quotation and Agreement dated 24 April 2017 (A303) and the DAS request form received 5 April 2017 (A358).

The following advice is based upon the information within:

1) Bat Survey Memo received 13 April 2017
2) Current route option plans for both schemes
3) Discussions at office meeting on 2 May 2017

These schemes are two of Highways England's three major road improvement schemes along the A303/a358 corridor (the other being the A303 Amesbury to Berwick Down).

Given that the Bat Survey Memo details the proposed bat survey methodology for both schemes and the relatively high level nature of the discussions, this advice encompasses both Road Improvement Schemes.

Bat survey methodology
Overall we welcome the bat survey methodology detailed in the Bat Survey Memo which presents plans for a broad suite of surveys which we would expect to be carried out for such a scheme, with timings in line with current good practice guidelines. Please see comments below which include the issues discussed during the meeting on 2 May 2017 and some additional comments following further internal consultation.

- **Transect Activity Surveys**

The bat survey memo states that transect activity surveys will be circular routes of approximately 5km will be carried out over approximately 3 hours. The applicant confirmed at the meeting that point counts would be increased from 8 to 10 per transect, which Natural England welcomes. The applicant also confirmed that two people would walk each transect route together.

Whilst, as noted by the applicant during the meeting, a route of 5km is in line with the 2016 Bat Conservation Trust Guidelines[1], Natural England remains concerned that this is at the upper limit of the guidelines (3 – 5km) especially when covering such a distance in 3 hours, which may for example limit the opportunity to stop at any locations where extensive activity is detected.
The applicant also explained that 3 static detectors are being used per transect. Natural England is also concerned that this may represent thin coverage over such an area, potentially being too few to accurately gauge the extent of bat activity.

Natural England therefore recommends that the scope of the transect activity surveys is revised, by shortening the distance of each transect and/or increasing the personnel on each.

- **Radio Tracking Studies**

The applicant explained at the meeting that the potential for radio tracking studies has been discussed given the proximity of bat Special Areas of Conservation. As this is an intrusive data-gathering method, Natural England is of the opinion that provided non-intrusive methods are robust enough to provide an accurate picture of the extent to which bats use the scheme areas, this method should not be necessary.

Furthermore, radio-tracking is a costly survey method and can be vulnerable to issues such as weather and equipment malfunctioning. We would therefore repeat the advice above and suggest that resources should be used more effectively on increasing the scope of the transect activity surveys.

- **Timing of landscape scale transect surveys**

The bat survey memo states that landscape scale transect surveys will be carried out in 2017, consistent with advice from Natural England regarding the A30 Chiverton to Carland Cross scheme on 26 January 2017. At the meeting, the applicant explained that Mott MacDonald is considering delaying these surveys until 2018 due to the number of surveys being undertaken in 2017.

If these surveys are delayed, potentially until after a draft bat licence application is submitted in 2018, it places greater emphasis on the need for the other suite of surveys to be as robust as possible. Again, this supports our advice above regarding revising the scope of the transect activity surveys.

- **Land access issues**

The applicant explained that it may not be possible to access some buildings/structures during all or part of the survey seasons. The applicant should ensure that they maintain records of efforts which have been made to access such buildings/structures and why it was not possible to gain access.

For buildings/structures which it is not possible to access, the consultant ecologist should assess the potential for bat roosts being present as far as possible, for example through surveying as close to the structure as possible.

The above principles should also be followed for land which cannot be accessed and which may be used by bats for commuting and/or foraging, or where there may be other protected species or priority habitats.

- **Crossing point surveys**

The bat survey memo proposed to carry out crossing point surveys between July and September 2017 following the selection of the preferred routes. We suggest that the survey data up to that point is fed back to us so that further advice on crossing point survey locations can be provided.

- **Hibernation surveys**

The bat survey memo states that hibernation surveys will be carried out in January 2018 and February 2018. Natural England recommends extending these surveys to include November 2017

[1] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

and December 2017 for more complete coverage and to allow for the possibility of mild weather in January and February.

- **Horseshoe bats**

As discussed during the meeting, Natural England recommends that transect and emergence/re-entry surveys are extended to 3 hours after sunset to account for late-emerging bat species, notably Horseshoes, particularly given the proximity of bat SACs such as Hestercombe House.

Whilst the bat survey memo refers to the 2016 BCT Guidelines we recommend that that the survey methodology also takes account of the English Nature Bat Mitigation Guidelines 2004[2] which set out specific advice regarding the survey methodology for Horseshoe bats.

Protected species licences

A number of protected species have been identified within both scheme study areas, including bats, great crested newts, dormice, badgers and water voles, so licences for one or more species may be required. It is important to be aware of the recommended licensing process for NSIPs which differs from that for standard planning proposals.

If a licence is required, the applicant should submit a draft licence application to Natural England at the pre-application stage. If Natural England is satisfied that the three licensing tests can be met on the basis of the information supplied, we will issue the applicant with a Letter of No Impediment (LONI) which can be included with the DCO application. This will confirm that, provided the information remains the same in the formal licence application following the DCO being obtained, a licence can be issued. Failure to obtain a LONI if a licence is required may risk the DCO application being rejected. Further information on the LONI process can be found here.

Great crested newt licensing policies

Please find general advice about the new licensing policies here. As agreed during the meeting, Natural England will provide further advice once we receive a memo regarding potential mitigation for the A303.

Terrestrial invertebrate surveys

As agreed during the meeting, Natural England will provide further advice once we receive a survey methodology.

Ancient Woodland impacts

Both schemes have the potential to directly or indirectly impact ancient woodland although it currently appears that only the A358 scheme will cause direct impacts, with the current route alignment going through parts of two Local Wildlife sites.

The applicant informed Natural England during the meeting that the latest route alignment for the A303 has been changed to avoid this, which Natural England particularly welcomes given the finite nature of ancient woodland.

Natural England has published standing advice on avoiding, reducing and compensating for impacts on ancient woodland which can be found here. As your assessment progresses in relation to affected ancient woodland, we would welcome the opportunity to provide further advice on avoiding and minimising effects and on how effectiveness of any compensatory measures might be maximised.

Biodiversity enhancements

As outlined during the meeting, Highways England is aiming for no net loss in biodiversity as a result of both schemes. Natural England strongly encourages both schemes to aim to achieve net gains, in line with paragraph 109 of the National Planning Policy Framework. Linear schemes such as road improvements provide significant opportunities for landscape enhancements such as hedges and tree-lines which can improve habitat connectivity. We would be happy to advise further

[2] Mitchell-Jones, A. (2004). Bat Mitigation Guidelines. English Nature.

on such enhancement opportunities through DAS.

For clarification on any points in this letter, please contact Oliver Lowe on 02080266836 or at oliver.lowe@naturalengland.org.uk

This letter concludes Natural England's Advice within the Quotation and Agreement dated 24 April 2017 (A303) and the DAS request form received 5 April 2017 (A358), however if you have any queries about the above points then please do not hesitate to contact me. If you would like further pre-application advice through our Discretionary Advice Service, either through document review or further meetings, we would be happy to provide this.

****

☒ The advice provided in this letter has been through Natural England's Quality Assurance process

This is the professional advice of the Natural England adviser named below. It is the best advice that can be given based on the information provided so far. Its quality and detail is dependent upon the quality and depth of the information which has been provided. It does not constitute a statutory response or decision, which will be made by Natural England acting corporately in its role as statutory consultee to the competent authority after an application has been submitted. The advice given is therefore not binding in any way and is provided without prejudice to the consideration of any statutory consultation response or decision which may be made by Natural England in due course. The final judgement on any proposals by Natural England is reserved until an application is made and will be made on the information then available, including any modifications to the proposal made after receipt of discretionary advice. All pre-application advice is subject to review and revision in the light of changes in relevant considerations, including changes in relation to the facts, scientific knowledge/evidence, policy, guidance or law. Natural England will not accept any liability for the accuracy, adequacy or completeness of, nor will any express or implied warranty be given for, the advice. This exclusion does not extend to any fraudulent misrepresentation made by or on behalf of Natural England.

Yours sincerely

Oliver Lowe
Sustainable Development (Somerset, Avon, Wiltshire)
Cc commercialservices@naturalengland.org.uk

Appendix E: Figures

Figure E.1: Static locations aerial

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Offline 1c
Offline 1b
Online 2.1a
Online 1.1b
Online 2.1b
Online 2.1c
Online 2.2a
Online 1.1c
Online 2.2b
Offline 4b
Online 1.2a
Online 1.2b
Online 2.2c
Offline 4a
Offline 4c
Online 1.2c

KEY

STATIC LOCATIONS



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: STATIC LOCATIONS

Drawing Status: Published - DEFINITION

Suitability: A3

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NTS	KB	ER	VC	ER

Original Size	Date	Date	Date	Date
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Drawing Number: HE PIN | Originator | Volume
HE551507 - MMSJV - EBD
Location | Type | Role | Number
000 - DR - LB - 0069

Project Ref. No.: 389107

Revision: C01

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Figure E.2: Crossing point survey locations

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CP 1
CP 2
CP 3
CP 4
CP 5
CP 6
CP 7
CP 8
CP 9
CP 10
CP 11
CP 12

KEY

CROSSING POINT (CP) LOCATIONS



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Scale

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: CROSSING POINT SURVEY LOCATIONS

Drawing Status: Published - DEFINITION

Suitability: A3

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Figure E.3: Trees identified during preliminary roost assessment surveys

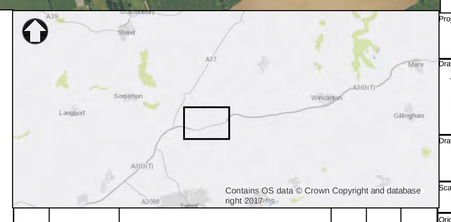
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KEY

TREE POTENTIAL

- CONFIRMED
- HIGH
- MODERATE

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Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: TREES IDENTIFIED DURING PRELIMINARY ROOST ASSESSMENT SURVEYS

Drawing Status: Published - DEFINITION

Suitability: A3

Scale				
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Original Size	Date	Date	Date	Date
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Drawing Number: HE551507 - MMSJV - EBD
Location: 000 | Type: DR | Role: LB | Number: 0072

Project Ref. No.: 389107

Revision: C01

Figure E.4: Buildings identified during preliminary roost assessment surveys

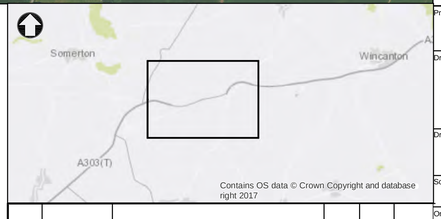
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KEY

BUILDING POTENTIAL

- CONFIRMED
- HIGH
- MODERATE



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Scale: 1:10,000 — 0 — 500 — 1,000 m

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: BUILDINGS IDENTIFIED DURING PRELIMINARY ROOST ASSESSMENT

Drawing Status	Suitability
Published - DEFINITION	A3

Scale	Designed	Drawn	Checked	Approved
AS SHOWN	KB	ER	VC	ER

Original Size	Date	Date	Date	Date
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Drawing Number: HE PIN | Originator | Volume — HE551507 - MMSJV - EBD

Location 000 | Type DR | Role LB | Number 0064

Project Ref. No. 389107

Revision C01

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Figure E.5: Transect routes April to May

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KEY

ROUTES

- OFFLINE 1
- OFFLINE 4
- ONLINE 1
- ONLINE 2



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: TRANSECT ROUTES APRIL TO MAY

Drawing Status: Published - DEFINITION

Suitability: A3

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Location | Type | Role | Number: 000 - DR - LB - 0070

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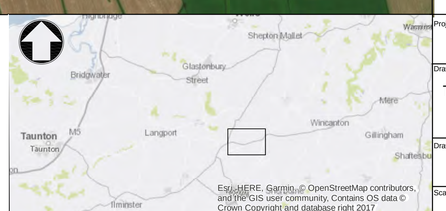
Figure E.6: Transect routes June to October

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KEY

ROUTES

- OFFLINE 1
- OFFLINE 4
- ONLINE 1.1
- ONLINE 1.2
- ONLINE 2.1
- ONLINE 2.2



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: TRANSECT ROUTES JUNE TO OCTOBER

Drawing Status: Published - DEFINITION

Suitability: A3

Scale	Designed	Drawn	Checked	Approved
NTS	KB	ER	VC	ER

Original Size	Date	Date	Date	Date
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Drawing Number: HE PIN | Originator | Volume
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Location 000 | Type - DR | Role - LB | Number - 0071

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Figure E.7: Confirmed roost map and roost type

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KEY

DAY ROOST/ TRANSITIONAL ROOST - BUILDINGS

SPECIES

- BAT SPECIES
- BROWN LONG EARED
- COMMON PIPISTRELLE
- LESSER HORSESHOE BAT
- LONG EARED SPECIES
- PIPISTRELLE SPECIES
- SERATINE
- SORPRANO PIPISTRELLE
- WHISKERED BAT

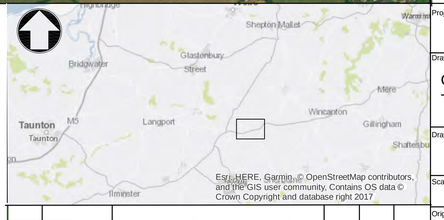
DAY ROOST/ TRANSITIONAL ROOST - TREES

SPECIES

- BAT SPECIES
- BROWN LONG EARED
- COMMON PIPISTRELLE
- NOCTULE
- SOPRANO PIPISTRELLE

POTENTIAL MATERNITY

- MYOTIS SPECIES



REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: CONFIRMED ROOST MAP AND ROOST TYPE

Drawing Status: Published - DEFINITION

Suitability: A3

Scale	Designed	Drawn	Checked	Approved
NTS	KB	ER	VC	ER

Original Size	Date	Date	Date	Date
A1	JULY 2018	JULY 2018]	JULY 2018	JULY 2018

Drawing Number: HE PIN | Originator | Volume: HE551507 - MMSJV - EBD

Location | Type | Role | Number: 000 - DR - LB - 0066

Project Ref. No.: 389107

Revision: C01

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Figure E.8: Heat map with added transect points and individual pass point data

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KEY

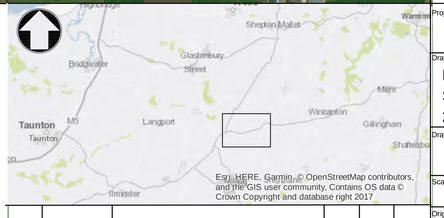
BAT PASS RECORDED ON BAT ACTIVITY SURVEY

BAT ACTIVITY RECORDED ON ACTIVITY SURVEYS

LOW

HIGH

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REV.	DATE	AMENDMENT DETAILS	ORIG	CHK'D	APP'D
C01	JULY 2018	DCO SUBMISSION	KH	VC	ER

Project Title: A303 SPARKFORD TO ILCHESTER DUALLING

Drawing Title: BAT ACTIVITY RECORDED DURING TRANSECT SURVEYS BETWEEN APRIL 2017 AND OCTOBER 2017

Drawing Status: Published - DEFINITION

Suitability: A3

Scale	Designed	Drawn	Checked	Approved
NTS	KB	ER	VC	ER

Original Size	Date	Date	Date	Date
A1	JULY 2018	JULY 2018	JULY 2018	JULY 2018

Drawing Number: HE PIN | Originator | Volume
HE551507 - MMSJV - EBD
Location 000 | Type DR | Role LB | Number 0073

Project Ref. No.: 389107

Revision: C01

Appendix F: Raw data tables

F.1 Preliminary BRP assessment results

Trees

Table F.1: Results of preliminary BRP surveys

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
WS45945	N/A	Common ash	Yes	F001a	Woodpecker hole	9m W	High	Extends down (20cm) but not up.	No	High	High	No
				F001b	Other	9m E	High	Shallow	No	High		
				F001c	Other	9.5m SE	High	Does not extend up	No	High		
WS43164	N/A	Pedunculate oak	Yes	F026a	Woodpecker hole	15m E	Moderate	On vertical stem	No	Moderate	High	Yes
				F026b	Woodpecker hole	9m E	High	Extends back and then up 40cm. Clean and dry	No	High		
				F026c	Woodpecker hole	12m E	Moderate	Callus roll at end of limb	No	Moderate		
		Pedunculate oak	Yes	F027a	Callus roll	11m E	Moderate	Callus growth from old torn limb	No	High	Negligible	No
		Common horse chestnut	Yes	F028a	Trunk cavity	2.5m N	High	Large callus roll on main stem. Extends up 50cm.	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
		Common horse chestnut	Yes	F029a	Callus roll	9m S	High	Middle main stem.	No	High	High	Re-inspect
WS94575	N/A	Not specified	Yes	F001a	Woodpecker hole	7m E	Moderate	Extends 20cm up.	No	Moderate	High	Yes
				F001b	Trunk cavity	3m NW	Moderate	Extends over 30cm. Dry	No	High		
ST103525	T3	Pedunculate oak	Yes	F001a	Other	4m n	Moderate	Extends in 40cm. Clean, dry, narrow	No	High	High	Yes
				F001b	Callus roll	3m S	Moderate	Extends down 70cm. Dry, tight, cobwebs	No	Moderate		
WS75059	N/A	Field maple	Yes	F001a	Trunk cavity	0.5m s	Moderate	Extends up 10cm	No	Low	Low	No
	N/A	Field maple	Yes	F002a		1.5m W	Moderate	Extends 20cm up, damp, open.	No	Low	Low	No
	N/A	Field maple	Yes	F003a		1.5m E	Moderate	On small main stem	No	Moderate	Moderate	Yes
	N/A	Field maple	Yes	F004a		1.75 m N	Moderate	Extends 20cm up and	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								fungus near top				
				F004b		1.5m N	Moderate	Extends 20cm up and fungus near top	No	Low		
				F004c		1.5m N	Moderate	Extends 15cm up and fungus at top	No	Low		
				F004d		1m S	Moderate	Connects to F004c	No	Negligible		
	N/A	Field maple	Yes	F005a		1.5m W	Moderate	Extends 10cm up, tight and damp	No	Negligible	Negligible	No
				F005b		0.5m S	Moderate	No cavity present	No	Negligible		
	N/A	Field maple	Yes	F006a		1.5m N	Moderate	Extends 15cm up and fungus at top	No	Low	Low	No
	N/A	Field maple	Yes	F007a		1.5m S	Moderate	Extends 25cm up	No	Low	Low	No
	T26	Common ash	Yes	F008a		5m N	Moderate	Extends 50cm up, dry with fungus at top	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F008b		2m SE	High	Extends 40cm up, dry	No	High		
				F008c		4m NE	Moderate	Extends up 40cm, dirty	No	Moderate		
	N/A	Field maple	Yes	F009a		1m N	Moderate	Extends 15cm up, dry, open	No	Low	Low	No
			Yes	F010a		1m N	Moderate	Extends 40cm up and damp	No	Moderate	Moderate	Yes
			Yes	F011a		1m S	Moderate	Extends 15cm up and dry	No	Low	Low	No
				F011b		1m N	Moderate	Extends 15cm up and dry	No	Low		
WS33439	N/A	Common ash	Yes	F001a	Woodpecker hole	4m S	Moderate	On main stem. Does not seem to extend up but possibly down.	No	Moderate	Moderate	Yes
				F001b	Trunk cavity	8m S		Clean and dry. Extends up 15-20cm.	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								Woodlice at top.				
	N/A	Common ash	Yes	F002a	Woodpecker hole	9m S	High	Bottom end of limb. Might extend up	No	Moderate	Moderate	Yes
				F002b		11m E	High	Main stem. Fully blocked with nesting material	No	Negligible		
				F002c		12m S	High	Extends 20cm down with nesting material	No	Negligible		
	N/A	Field maple	Yes	F003a	Branch cavity	1.5m E	Moderate	Extends 20cm down and damp	No	Low	Low	No
				F003b		2.5m NE	Moderate	Base of limb. Too shallow and damp	No	Negligible		
	N/A	Common hawthorn	Yes	F004a	Trunk cavity	3m N	Moderate	Unsuitable cavity	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								on one of stems				
	N/A	Field maple	Yes	F005a	Branch cavity	1m N	Moderate	Shallow and nesting material inside.	No	Negligible	Negligible	No
				F005b		1.5m N	Moderate	Extends down, connecting to F005a	No	Negligible		
	N/A	Field maple	Yes	F006a	Trunk cavity	2m S	High	Extends 40cm, dry and crumbly	No	Moderate	Moderate	Yes
	N/A	Common ash	Yes	F007a	Callus roll	4m N	Moderate	Too shallow	No	Negligible	Low	No
				F007b		3m S	Low	Extends 10cm in	No	Low		
	N/A	Field maple	Yes	F008a	Trunk cavity	1.5m N	Moderate	Extends in to the side 30cm. Damp inside.	No	Low	Low	No
	N/A	Common hawthorn	Yes	F009a	Trunk cavity	0.5m N	Moderate	Extends 10cm up, damp inside	No	Low	Low	No
	N/A	Field maple	Yes	F010a	Branch cavity	2m S	Moderate	Extends 10-15cm,	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								slightly damp				
	N/A	Not specified	Yes	F011a	Trunk cavity	1m N	Moderate	Extends 50cm up. Clean and large open cavity inside.	No	Moderate	Moderate	No
ST97976	N/A	Common ash	No	F001a	Split	1m n/a	Moderate	Fairly open and not fully closed off	No	Low	Low	No
	N/A	Common ash	Yes	F002a	Callus roll	4m SW	High	Extends 25cm back, cavity open	No	Low	Low	No
	N/A	Common ash	Yes	F003a		5m SE	Moderate	Shallow, open, wet and exposed.	No	Negligible	Negligible	No
	T2	Common ash	Yes	F004a		6m W	Moderate	Shallow	No	Negligible	High	Yes
				F004b		5m W	Moderate	Extends up 50cm	No	High		
	N/A	Common ash	Yes	F005a	Woodpecker hole	7m N	Moderate	Extends down 15cm. Large and open cavity,	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								wet at the bottom				
	N/A	Common ash	No	F006a	Trunk cavity	2m N	Moderate	Extends up 20cm, narrow	No	Moderate	Moderate	Yes
	N/A	Common ash	Yes	F007a		1m N	Moderate	Does not extend up from open cavity at base of the tree	No	Negligible	Negligible	No
	N/A	Common elder	Yes	F008a		1m E	Moderate	Extends up and very dry inside	No	Moderate	High	Yes
				F008b		2m S	Moderate	Extends up 70cm	No	High		
ST128002	T4	Common ash	Yes	F001a	Callus roll	8m E	Moderate	Large callus on main stem. Birds nest present.	No	High	High	Yes
	N/A	Common ash	Yes	F002a	Woodpecker hole	9m SW	Moderate	Extends back 10cm and down 50cm. Small	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								cavity inside.				
				F002b	Woodpecker hole	7m SW	Moderate	Extends in 20cm and up 30cm but full of leaves	No	Low		
	T5	Common ash	Yes	F003a	Callus roll	3m S	High	Extends 80cm along limb and dry	No	High	High	Yes
	T6	Pedunculate oak	No	F004a	Trunk cavity	5m E	Moderate	Hollow in limb	No	Moderate	High	Yes
				F004b	Branch cavity	6m N	High	Large open cavity	No	High		
				F004c	Trunk cavity	3m W	Low	Small splits in old tear wound on main stem	No	Low		
				F004d	Branch cavity	6m E	High	Open downward facing cavity	No	High		
	N/A	Common ash	No	F005a	Trunk cavity	4m N/A	Moderate	Large open cavity in	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								trunk od dead tree				
	N/A	Pedunculate oak	Yes	F006a	Loose bark	5m N	Low	Lifted bark from previous lightning strike	No	Low	Moderate	Yes
	T7	Common ash	Yes	F007a	Trunk cavity	3m N	High	Very open with small cracks and nesting material	No	Low	High	Yes
				F007b	Branch cavity	4m W	Moderate	Too shallow	No	Negligible		No
				F007c	Callus roll	7m N	Moderate	Long callus roll split on vertical limb. Connects to F007d and F007e	No	High		Yes
				F007d	Woodpecker hole	9m SW	High	Large hole near top of tree. Sounds hollow	No	High		Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F007e	Woodpecker hole	10m SW	High	Large hole near top of tree. Sounds hollow	No	High		Yes
				F007f	Callus roll	10m N/A	Moderate	Clean and dry. May connect with callus roll 1m away	No	High		Yes
	N/A	Common ash	Yes	F008a	Other	6m SE	High	Hazard beam with no cavity present	No	Negligible	Negligible	No
	T8	Common ash	Yes	F009a	Callus roll	3m W	Moderate	On main stem, connects to F009b	No	Negligible	High	Yes
				F009b	Trunk cavity	2m E	Moderate	On main stem with nesting material.	No	Moderate		Yes
				F009c	Woodpecker hole	6m S	High	On main stem	No	Moderate		Yes
				F009d	Woodpecker hole	8m W	High	On main stem	No	High		Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F009e	Woodpecker hole	9m E	High	On main stem	No	High		Yes
	N/A	Unknown	No	F010a	Loose bark	4m N/A	Low	Flaking bark	No	Low	Low	No
	N/A	Unknown	No	F011a	Loose bark	5m N/A	Low	Several loos bits of bark	No	Low	Low	No
	N/A	Sycamore	Yes	F012a	Ivy cover	4m N/A	Low	Ivy clad tree with signs of decay	No	Low	Low	No
	N/A	Common ash	Yes	F013a	Woodpecker hole	14m N	High	Does not extend up	No	Negligible	Moderate	Yes
				F013b	Woodpecker hole	15m SW	High	Two cavities. Both extend up 7cm and 10cm.	No	Moderate		
	N/A	Common ash	Yes	F014a	Callus roll	4m S	Moderate	Extends in 20cm	No	Moderate	Moderate	Yes
				F014b	Branch cavity	3m SW	Moderate	Extends in 15cm, connecting with small cavity on side	No	Low		
				F014c	Callus roll	4m NW	Moderate	Extends back	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								10cm and 5cm in. Dry				
				F014d	Callus roll	4m NW	Moderate	Extends in 30cm. Damp	No	Low		
	N/A	Willow/unknown hybrid	Yes	F015a	Other	3m E	Low	Small fissures in open wound	No	Low	Low	No
	N/A	Willow/unknown hybrid	Yes	F016a	Split	1.5m W	Moderate	Extends in 30cm, dry, clean.	No	Moderate	Moderate	Yes
	N/A	Willow/unknown hybrid	Yes	F017a	Branch cavity	1m W	Moderate	Shallow cavity extending 8-10cm in.	No	Low	Low	No
WS1856	N/A	Sweet chestnut	Yes	F001a	Trunk cavity	2m W	Moderate	Shallow split, too tight	No	Negligible	Moderate	Yes
	N/A	Pedunculate oak	Yes	F002a	Callus roll	4m S	Moderate	Too shallow	No	Negligible	Moderate	Yes
	T42	Pedunculate oak	Yes	F003a	Woodpecker hole	12m S	Moderate	Extends 20cm down, some nesting material	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
		Pedunculate oak	Yes	F003b	Woodpecker hole	11m NE	High	Too shallow	No	Negligible	High	Yes
WS31054	T24	Common ash	Yes	F001a	Trunk cavity	3m S	high	Large, open, dry cavity extending 30cm up	No	High	High	Yes
WS40390	N/A	Common ash	Yes	F001a	Callus roll	4m W	Moderate	At kink on main stem	No	Moderate	Moderate	Yes
	N/A	Unknown	No	F002a	Loose bark	5m N/A	Low	Dead standing tree	No	Low	Low	No
ST153085	T9	Pedunculate oak	Yes	F001a	Woodpecker hole	9m W	High	Within large callus roll. Extends 30cm up.	No	Moderate	High	Yes
				F001b	Callus Roll	11m N	Moderate	No cavity	No	Negligible		
				F001c	Trunk Cavity	9m N	High	Top of main trunk. Bees present	No	Low		
				F001d	Other	5m S	Moderate	Two cavities. First extends 15cm left.	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								Second extends 85cm up.				
	N/A	European beech	No	F002a	Loose Bark	4m N/A	Low	Fragile and lots of loose bark	No	Low	Low	No
	N/A	Sycamore	Yes	F003a	Trunk Cavity	3m N	Moderate	Extends 5-7cm up. Not very wide	No	Low	Low	No
	N/A	Unknown	Yes	F004a	Callus Roll	5m E	High	Extends down 15cm, connects with callus roll facing up above	No	Low	Moderate	Yes
				F004b	Woodpecker Hole	10m E	High	Extends 40cm down and 1m up. Pool of water and dirty	No	Moderate		
	T10	Pedunculate oak	Yes	F005a	Other	15m E	High	No cavity	No	Negligible	High	Yes
				F005b	Woodpecker Hole	14m N	Moderate	Extends up	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Sycamore	No	F006a	Woodpecker Hole	9m E	Low	Extends down	No	Low	Low	No
	N/A	Pedunculate oak	Yes	F007a	Woodpecker Hole	9m W	Moderate	Extends up 7-10cm	No	Low	Low	No
	N/A	Pedunculate oak	No	F008a	Other	6m N/A	Low	Fragile, loose bark	No	Low	Low	No
	N/A	Common ash	Yes	F009a	Branch Cavity	3m W	Moderate	Extends along limb	No	Moderate	Moderate	Yes
				F009b	Trunk Cavity	3m N	Low	Extends 10cm but open	No	Low		
	T11	Common horse chestnut	Yes	F010a	Woodpecker Hole	8m W	Moderate	Extends up, down, and sideways 5cm	No	Low	High	Yes
				F010b	Branch Cavity	8m W	Moderate	Extends 80cm along limb towards main stem	No	High		
				F010c	Branch Cavity	6m S	Moderate	Extends 90cm in, damp and open	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F010d	Branch Cavity	6m E	Moderate	Connects to another callus role. Open and full of nesting material	No	Negligible		
				F010e	Callus Roll	8m S	Moderate	Too open and exposed	No	Negligible		
				F010f	Callus Roll	9m W	Moderate	Small hole extends 40cm	No	Moderate		
	T12	European beech	Yes	F011a	Callus Roll	10m S	Moderate	Dry and clean. Extends 60-80cm in	No	High	High	Yes
				F011b	Callus Roll	7m W	Moderate	Wide and open inside	No	Low		
				F011c	Callus Roll	3m W	Moderate	Extends up 5cm and back 10-15cm	No	Low		
				F011d	Woodpecker Hole	15m SW	Moderate	Clean and dry	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Pedunculate oak	Yes	F012a	Callus Roll	2m W	Moderate	Extends 15cm up, cavity is slightly tight	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F013a	Split	4m E	Low	Broken dead limb	No	Low	Low	No
				F013b	Split	5m E	Low	Broken dead limb	No	Low		
	N/A	Pedunculate oak	Yes	F014a	Trunk Cavity	6m S	Moderate	Callus roll scar. Slightly open cavities	No	Low	Low	No
				F014b	Woodpecker Hole	7m E	High	Near base of limb but shallow and no scar	No	Negligible		
	N/A	Pedunculate oak	Yes	F015a	Callus Roll	5m E	Moderate	Some gaps behind ram's horn of callus rolls	No	Low	High	Yes
				F015b	Woodpecker Hole	9m S	High	Underside of limb	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F015c	Woodpecker Hole	10m N	High	Extends up approximately 1m	No	High		
	N/A	Pedunculate oak	Yes	F016a	Split	8m S	Moderate	Extends 50cm in. Clean and sheltered	No	High	High	Yes
	N/A	Pedunculate oak	Yes	F017a	Other	7m N/A	High	Large open tree with gap in limb. Cavity extends along a branch from inside	No	High	High	Yes
	N/A	Pedunculate oak	Yes	F018a	Woodpecker Hole	9m W	Moderate	Extends 10cm along branch, then 40cm towards main stem	No	Moderate	Moderate	Yes
				F018b	Other	7m S	Moderate	Small cavities but too exposed	No	Negligible		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Pedunculate oak	Yes	F019a	Woodpecker Hole	8m NW	Moderate	Extends 20cm up and 60cm down. Bird nesting material	No	Moderate	Moderate	Yes
				F019b	Branch Cavity	8m E	Moderate	No cavity	No	Negligible		
	N/A	Pedunculate oak	Yes	F020a	Branch Cavity	4m W	Moderate	Bottom of limb at top of trunk but does not extend upwards	No	Negligible	Negligible	No
	N/A	Pedunculate oak	Yes	F021a	Other	4m N/A	Moderate	No cavities within side of the trunk	No	Negligible	Negligible	No
	N/A	Pedunculate oak	Yes	F022a	Branch Cavity	4m W	Low	Extends 5cm in. Limited shelter	No	Low	High	Yes
				F022b	Split	8m S	Moderate	Small cavity with limited shelter	No	Low		
				F022c	Branch Cavity	9m W	Moderate	Extends 90cm	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								along. Clean, dry, not too open				
	N/A	Pedunculate oak	Yes	F023a	Branch Cavity	3.5m S	Moderate	Extends back 7-8cm towards trunk. Open and not clean	No	Low	Low	No
				F023b	Callus Roll	7m S	Moderate	Shallow and open	No	Negligible		
	N/A	Common ash	Yes	F024a	Trunk Cavity	0.5m SW	Moderate	Large open hollow. Low access point makes it less suitable	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F025a	Branch Cavity	7m S	High	On vertical limb and connects to F025c	No	Moderate	High	Yes
				F025b	Callus Roll	5m N	High	Extends back with another sub	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								cavity near top				
				F025c	Branch Cavity	7.5m N	High	Large open cavity, 50cm into branch, fairly dry inside	No	Moderate		
				F025d	Trunk Cavity	4m NE	High	Extends 30cm up, tight cavity	No	Moderate		
	N/A	Pedunculate oak	Yes	F026a	Callus Roll	5m W	Moderate	Small cavity extending 7cm behind broken bit of branch	No	Low	Low	No
	N/A	Pedunculate oak	Yes	F027a	Woodpecker Hole	11m S	High	Extends 10cm in. Unsuitable cavity	No	Negligible	Moderate	Yes
				F027b	Woodpecker Hole	14m N	High	Extends up 25cm and down 5cm	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Sweet chestnut	Yes	F028a	Split	4m N/A	Low	Small cavities offering limited shelter	No	Low	Low	No
	N/A	Sweet chestnut	Yes	F029a	Split	3m NW	Moderate	Broken limb. Open, 8cm long, little shelter	No	Low	Low	No
	N/A	Sweet chestnut	No	F030a	Loose Bark	2m N	Moderate	Fragile lifted bark	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F031a	Split	4m N	Moderate	Small cavities with limited shelter	No	Low	Low	No
				F031b	Loose Bark	8m NE	Low	Bark on dying vertical limb	No	Low		
	T13	Sweet chestnut	Yes	F032a	Other	2m S	Moderate	Lifted bark and wood cavity. Large, clean cavity	No	High	High	Yes
	N/A	Sweet chestnut	Yes	F033a	Loose Bark	1.5m W	Low	Fragile lifted bark	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Sweet chestnut	Yes	F034a	Branch Cavity	3m W	Moderate	Extends back 25cm. Clean, with fungus, open at back	No	Low	Low	No
				F034b	Other	2m SE	Low	No cavities	No	Negligible		
	N/A	Pedunculate oak	Yes	F035a	Other	10m N	Moderate	Split limb out of callus roll with no suitable cavities	No	Negligible	Negligible	
				F035b	Split	10m NW	Moderate	Broken branch with splits. No suitable cavity	No	Negligible		
	N/A	Pedunculate oak	No	F036a	Loose Bark	8m NE	Moderate	Lifted bark on vertical dying limb	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F037a	Split	7m NW	Moderate	Extends 5cm in, limited shelter	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Yes	F038a	Woodpecker Hole	3.5m S	Moderate	On main stem. Wet near front and dry at back	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F039a	Branch Cavity	4m W	Moderate	Extends 30cm along branch. Fairly clean but open	No	Moderate	Moderate	Yes
WS74835	N/A	Pedunculate oak	Yes	F001a	Trunk cavity	3m W	Moderate	Extends in 30cm where cavity narrows	No	Moderate	Moderate	Yes
	N/A	English elm	Yes	F002a	Trunk Cavity	1m SW	Moderate	Extends up 15cm	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F003a	Split	2m S	Moderate	Extends up 80cm. Bottom end extends down 50cm where it is wet and dirty	No	Moderate	Moderate	Yes
	N/A	Unknown	Yes	F004a	Trunk Cavity	3m S	Moderate	Two callus	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								rolls on top				
	N/A	Willow - unknown/hybrid	Yes	F005a	Trunk Cavity	2m E	High	Extends 1m, narrows at 60c. Bottom cavity is dirty and exposed	No	High	High	Yes
	N/A	Field maple	Yes	F006a	Trunk Cavity	2m E	Moderate	Extends up 20cm	No	Moderate	Moderate	Yes
U00010	T14	Common ash	Yes	F001a	Callus roll	5m S	High	Only south side of this tree visible from this field	No	Not safe to climb	High	Yes
				F001b	Trunk Cavity	4m S	High	Large open trunk crack with multiple holes along split and lifted bark. Birds nest	No	Not safe to climb	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								inside one hole				
				F001c	Callus Roll	6m S	High		No	Not safe to climb	High	Yes
				F001d	Woodpecker Hole	6m N	High	Hole on northern limb	No	Not safe to climb	High	Yes
				F001e	Woodpecker Hole	6m SE	High	Approximately 4 woodpecker holes along trunk	No	Not safe to climb	High	Yes
U00016	N/A	Apple tree	N/A	F001a	Branch cavity	2m S	Moderate	No suitable cavity	No	Negligible	Negligible	No
	N/A	Apple tree	N/A	F002a	Branch Cavity	2m W	Moderate	No suitable cavity	No	Negligible	Negligible	No
ST139171	N/A	Unknown species	No	F001a	Loose bark	5m W	Moderate	Standing deadwood, no limbs	No	Moderate	Moderate	Yes
WS23027	N/A	Sycamore	No	F001a	Callus roll	8m NW	Low	Callus roll under branch	No	Low	Low	No
	N/A	Field maple	No	F002a	Callus Roll	2m E	High	No suitable cavity	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F002b	Callus Roll	2m E	High	No suitable cavity	No	Negligible	Negligible	
				F002c	Callus Roll	2m W	High	No suitable cavity	No	Negligible	Negligible	
	N/A	Common ash	No	F003a	Branch Cavity	6m NE	Moderate	No cavities present. Small hole straight to top	No	Negligible	Negligible	No
WS75681	T27	European beech	Yes	F001a	Woodpecker hole	7m N	High	Two woodpecker holes	No	High	High	Re-inspect
	T28	Other	Yes	F002a	Callus Roll	1.5m E	High	Rot hole in apple tree. Nesting bird	No	High	High	Re-inspect
	N/A	Other	Yes	F003a	Trunk Cavity	2m E	High	Too exposed. Chick present	No	Low	Moderate	Yes
			Yes	F003b	Branch Cavity	4m W	High	Extends up 30cm. Clean and dry	No	Moderate	Moderate	Yes
	N/A	Other	Yes	F004a	Trunk Cavity	1.5m W	High	Open and exposed	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	T29	Other	Yes	F005a	Trunk Cavity	1.5m E	High	Clean and dry. Extends 1.2m up into main stem	No	High	High	Yes
	T30	Other	Yes	F006a	Trunk Cavity	1.5m N	High	Too open	No	Negligible	High	Yes
			Yes	F006b	Trunk Cavity	1.5m SW	High	Extends up 40cm. Dry and clean	No	High	Yes	Yes
	T31	Unknown	No	F007a	Trunk Cavity	3m S	High	Very open inside and cluttered entrance	No	Negligible	High	No
				F007b	Branch Cavity	2m N	High	Very open inside and cluttered entrance	No	High	High	Yes
	T32	Unknown	Yes	F008a	Branch Cavity	4m S	High	Too shallow	No	Negligible	High	Yes
				F008b	Branch Cavity	6m S	High	Not found	No	High		
				F008c	Branch Cavity	6m S	High	Too shallow	No	Negligible		
	T33	Common ash	Yes	F009a	Callus Roll	7m W	High	Not found	No	High	High	Re-inspect

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Yes	F010a	Callus Roll	5m S	High	Too shallow	No	Negligible	Negligible	No
	T34	Unknown - dead	No	F011a	Woodpecker Hole	8m W	High	13 woodpecker holes leading to separate cavities	No	High	High	Re-inspect
	N/A	Sycamore	Yes	F012a	Branch Cavity	7m S	High	Too wet and dirty.	No	Negligible	Negligible	No
	N/A	Sycamore	Yes	F013a	Trunk Cavity	8m W	High	Knot hole leading to large cavity	No	Negligible	Low	No
				F013b	Callus Roll	7m E	High	Shallow knot hole	No	Negligible		
				F013c	Trunk cavity	12m W	High	Shallow	No	Low		
	N/A	Sycamore	Yes	F014a	Callus Roll	4m W	High	Callus roll on branch leading to cavity. Dirty and shallow	No	Negligible	Negligible	No
				F014b	Callus Roll	4.5m W	High	Callus roll leading to cavity. Dirty and shallow	No	Negligible		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
ST174989	N/A	English oak	Yes	F001a	Loose bark	7m NE	Low	Base of broken branch	No	Low	Low	No
	N/A	English oak	Yes	F002a	Split	9m W	Moderate	Split in broken limb.	No	Moderate	Moderate	Yes
				F002b	Callus Roll	7.5m W	Moderate	N/A	No	Moderate		
	N/A	English oak	Yes	F003a	Callus Roll	5m S	Moderate	N/A	No	Moderate	Moderate	Yes
				F003b	Callus Roll	8m S	Moderate	N/A	No	Moderate		
				F003c	Callus Roll	6m E	Moderate	Hole in callus roll of lowest southern branch.	No	Moderate		
				F003d	Callus Roll	8m E	Moderate	Hole slightly exposed, in knot hole.	No	Moderate		
				F003e	Callus Roll	6m E	Moderate	Small knot hole at branching of southern branch.	No	Moderate		
	N/A	Other	Yes	F004a	Trunk Cavity	5m E	High	Large cavity above	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								lower northern limb				
				F004b	Branch Cavity	5m SE	Moderate	Cavity on lower branch in knot hole	No	Moderate		
				F004c	Branch Cavity	5m SW	Low	Slightly upwards facing hole on stump of branch	No	Low		
	N/A	English oak	Yes	F005a	Branch Cavity	6m N	Low	Tree in southern neighbouring land parcel. Hole under broken limb base.	No	Low	Low	No
WS23156	N/A	Common oak	Yes	F001a	Callus roll	5m E	Moderate	Shallow and exposed	No	Negligible	Negligible	No
WS52772	N/A	Willow unknown/ hybrid	No	F001a	Trunk cavity	1.5m W	Moderate	Crumbling apart	No	Negligible	Negligible	No
ST106737	N/A	Willow unknown/ hybrid	Yes	F001a	Split	1.5m E	High	Extends up 40cm. Dry but	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								cluttered entrance				
		Willow unknown/ hybrid		F001b	Not specified	Not specified	Moderate	Extends up 1m	No	Moderate		
	T35	Unknown	Yes	F002a	Branch Cavity	0.5m N	Moderate	Hole on northern branch in knot hole at the joining, facing other branch.	No	Moderate	Moderate	Yes
	N/A	Willow unknown/hybrid	Yes	F003a	Trunk Cavity	1m S	High	Extends up 50cm. Dry and tight	No	Moderate	Moderate	Yes
	N/A	Common ash	Not specified	F004a	Trunk Cavity	0.5m S	Moderate	Extends up 20cm. Exposed and cluttered	No	Negligible	Negligible	No
	N/A	Willow unknown/hybrid	Not specified	F005a	Trunk Cavity	2.5m W	Moderate	Multiple cavities, all exposed	No	Negligible	Negligible	No
	N/A	Willow unknown/hybrid	Not specified	F006a	Trunk Cavity	2.5m W	Moderate	Extends up 1.5m. But open at top.	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								Dirty and crumbling				
	N/A	Field maple	Yes	F007a	Branch Cavity	0.3m E	Moderate	Partly hidden by ivy. Extends up 25cm. Clean, dry and narrow	No	Moderate	Moderate	Yes
WS45293	N/A	English oak	Yes	F001a	Split	12m W	High	Exposed in centre. Extends 40cm up and down. Both cavities dry, narrow and clean	No	High	High	Yes
	N/A	English oak	Yes	F002a	Branch Cavity	6m W	High	Narrow as it extends up for 70cm. Wide cavity	No	High	High	Yes
	N/A	Field maple	Yes	F003a	Trunk Cavity	5m SW	High	Exposed	No	Negligible	Moderate	Yes
		Field maple		F003b	Branch Cavity	5m SW	Found in BT2	Exposed until		Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								40cm then dry and enclosed for 20cm				
	N/A	Common ash	Yes	F004a	Woodpecker Hole	10m W	High	Extends 20cm down	No	Low	High	Yes
				F004b	Callus Roll	20m S	Found in BT2	Found during BT2. On main branch extending S	No	High		
				F004c	Callus Roll	9.5m N	Found in BT2	Extends down 40cm but damp and dirty	No	Negligible		
	N/A	Common ash	Yes	F005a	Woodpecker Hole	12m E	High	One cavity does not extend up. Second cavity is too shallow	No	Negligible	High	Yes
				F005b	Woodpecker Hole	14m S	High	Unable to find	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F005c	Callus Roll	9m W	High	Full of dirt and shallow	No	Negligible		
				F005d	Branch Cavity	17m W	High	Split/long callus roll on branch. Extends up 5cm	No	Negligible		
			Yes	F005e	Woodpecker Hole	20m S	High	Extends up 40cm and clean and dry. Extends down 30cm, dry and dirty	No	High		
	N/A	Common ash	Yes	F006a	Callus Roll	20m NE	High	Too shallow	No	Negligible	Low	No
			Yes	F006b	Trunk Cavity	0m E	Low	Low cavity	No	Low		
	N/A	Common ash	Yes	F007a	Branch Cavity	20m NW	Moderate	Muddy and shallow	No	Negligible	Negligible	No
	N/A	Common hazel	Yes	F008a	Branch Cavity	2m N	Low	Low cavity	No	Low	Low	No
			Yes	F008b	Branch Cavity	2m E	Low	Low cavity	No	Low		
	N/A	English oak	Yes	F009a	Split	6m E	Moderate	Hazard beam in split branch	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								but too exposed				
	N/A	Unknown - dead	No	F010a	Callus Roll	2m E	High	Tree is completely hollow. Open at top and bottom. Size of cavity and being dry makes it suitable for bats	No	Moderate	Moderate	Yes
	N/A	Crab apple	Yes	F011a	Callus Roll	3m W	Moderate	Extends down 20cm and up 30cm. Nesting material and cobwebs present	No	Moderate	Moderate	Yes
	N/A	Common ash	No	F012a	Woodpecker Hole	13m E	High	Woodpecker hole in rot hole. Bracket fungus on tree.	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
			No	F012b	Callus Roll	7m W	High		No	High		
			No	F012c	Callus Roll	3m SW	High	2 knot holes at same height, potentially leading to same cavity	No	High		
	N/A	English oak	Yes	F013a	Branch Cavity	4m NW	Moderate	Too exposed	No	Negligible	Negligible	No
	N/A	Common ash	Yes	F014a	Trunk Cavity	17m W	High	Large cavity in knot hole on trunk.	No	High	High	Yes
	N/A	Silver birch	Yes	F015a	Woodpecker Hole	15m E	High	Very rotten and exposed	No	Negligible	Negligible	No
			Yes	F015b	Callus Roll	15m E	Moderate	Very rotten and exposed	No	Negligible		
	N/A	Field maple	Yes	F016a	Branch Cavity	3m N	High	Extends up 50cm. Clean and dry.	No	High	High	Yes
	N/A	Unknown - dead	No	F017a	Split	2m NE	Moderate	Extends up 40cm. Dry, narrow	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								and clean. Small crack at 20cm				
	N/A	Common ash	Not specified	F018a	Woodpecker Hole	17m E	High	Too shallow	No	Negligible	Negligible	No
	N/A	Other	No	F019a	Woodpecker Hole	10m E	High	Standing deadwood	No	High	High	Yes
	N/A	Horse chestnut	Yes	F020a	Branch Cavity	5m S	High	Large cavity in callus roll leading up branch	No	Moderate	High	Yes
			Yes	F020b	Branch Cavity	7m S	High	Large cavity in callus roll leading up branch	No	High		
			Yes	F020c	Branch Cavity	5.5m S	High	Large cavity in callus roll leading up branch further along than	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								F020b and F020c				
			Yes	F020d	Branch Cavity	8m N	High	Large cavity in callus roll leading up branch further along than F020d	No	Negligible		
			Yes	F020e	Branch Cavity	7m N	High	Large cavity in callus roll leading up branch further along than F020e	No	Negligible		
			Yes	F020f	Branch Cavity	4m S	High	Too shallow	No	Negligible		
			Yes	F020g	Trunk Cavity	5.5m S	High	Too shallow	No	Negligible		
			Yes	F020h (F020f on BT2)	Branch Cavity	11m N	Moderate	Extends down 10cm and up 7cm	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Not specified	F021a	Trunk cavity	1m N	High	Extends up 30cm but very dirty	No	Negligible	Negligible	No
	N/A	Common ash	Not specified	F022a	Trunk Cavity	5m S	High	Too shallow	No	Negligible	Low	No
			Not specified	F022b	Trunk Cavity	0m N	Moderate	Minimal shelter inside hollow behind plates of wood	No	Low		
	N/A	Common ash	Yes	F023a	Branch Cavity	5m SE	Moderate	Too shallow	No	Negligible	Negligible	No
	N/A	Common ash	Yes	F024a	Callus Roll	5m S	High	Too shallow	No	Negligible	Negligible	No
	N/A	Common ash	Yes	F025a	Not specified	Not specified	Not specified	Previously tagged. High potential features	No	High	High	Yes
	N/A	Common ash	Yes	F026a	Branch Cavity	3m E	High	Extends in 10cm. Clean and dry	No	Low	Low	No
	N/A	Common ash	Yes	F027a	Callus Roll	4m NE	Moderate	Extends up 2cm	No	Negligible	Negligible	No
	N/A	Goat willow	No	F028a	Trunk Cavity	0m NE	Low	Low cavity. Moss at base	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	No	F029a	Ivy Cover	0m All	Moderate	Mostly dead ivy, from base to 20m	No	Moderate	Moderate	Yes
	N/A	Common ash	Yes	F030a	Woodpecker Hole	15m S	Low	Greater spotted woodpecker chicks and adults present	No	Low	High	Yes
			Yes	F030b	Woodpecker Hole	15m SW	Moderate	Woodpecker hole	No	Moderate		
			Yes	F030c	Woodpecker Hole	15m SW	Moderate	Woodpecker hole	No	Moderate		
			Yes	F030d	Woodpecker Hole	15m SW	Moderate	Woodpecker hole	No	Moderate		
			Yes	F030e	Woodpecker Hole	15m SW	Moderate	Woodpecker hole	No	Moderate		
			Yes	F030f	Woodpecker Hole	18m SW	High	Wide opening	No	High		
			Yes	F030g	Woodpecker Hole	18m SW	High	Wide opening	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Yes	F031a	Callus Roll	17m S	Moderate	Extends up 20cm. Clean and dry	No	Moderate	Moderate	Yes
	N/A	Common ash	Yes	F032a	Callus Roll	10m SW	Moderate	On trunk. Shallow	No	Moderate	Moderate	Yes
	N/A	Common ash	No	F033a	Trunk Cavity	1.5m W	Moderate	Extends up 60cm. Dry, clean and narrow	No	Moderate	Moderate	Yes
WS23280	N/A	European beech	Yes	F001a	Callus roll	9m E	High	Extends up 60cm. Bird asleep at bottom	No	High	High	Yes
	N/A	Field maple	Yes	F002a	Trunk Cavity	1m W	High	Stem has collapsed since BT1	No	Negligible	Moderate	No
			Yes	F002b	Trunk Cavity	1m W	High	Extends up 35cm. Narrow, clean and dry	No	Moderate		
	N/A	Field maple	Yes	F003a	Trunk Cavity	1m W	High	Extends up 50cm and dry. White fungus present and low	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								to the ground				
	N/A	Common ash	Yes	F004a	Branch Cavity	10m SW	High	Cavity in callus roll. Too shallow	No	Negligible	Negligible	No
	N/A	Unknown - dead	Yes	F005a	Trunk Cavity	8m SW	Low	Cavity at base of broken limb	No	Low	Low	No
WS72312	N/A	Willow - unknown/hybrid	Yes	F001a	Branch cavity	1.5m W	High	Extends down 40cm. Dry but open. Close to ground with a cluttered entrance	No	Low	Low	No
	N/A	Common ash	N/A	F002a	Callus roll	6m SE	Low	On branch overhanging tree	No	Low	Low	No
WS43258	N/A	Field maple	No	F001a	Loose bark	3m All	Moderate	Unsafe to climb	No	Moderate	Moderate	Yes
	N/A	Common ash	Yes	F002a	Trunk Cavity	1 to 6m N	High	Extends up 30cm	No	Moderate	Moderate	Yes
			N/A	F002b	Ivy Cover	1m to top All	Low	Sparse cover	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Yes	F003a	Branch Cavity	0.5m S	Moderate	Extends approx.1 m. Dry inside	No	Moderate	Moderate	Yes
	N/A	Pedunculate oak	Yes	F004a	Branch Cavity	8m S	Moderate	Shallow split. Some shelter	No	Low	Moderate	Yes
			Yes	F004b	Branch Cavity	6m S	Moderate	Extends 40cm	No	Moderate		
	N/A	Common ash	Yes	F005a	Trunk Cavity	5m SE	Moderate	Full of material	No	Negligible	Negligible	No
	N/A		Yes	F005b	Branch Cavity	6m S	Moderate	Full of material	No	Negligible		
	N/A	Common ash	Yes	F006a	Branch Cavity	7m S	Moderate	Extends in 12cm. Exposed. Further 5cm. 3 cm diameter	No	Low	Low	No
	N/A	Pedunculate oak	No	F007a	Branch Cavity	4m NE	Moderate	Too shallow and exposed	No	Negligible	Negligible	No
	N/A	Common ash	Yes	F008a	Callus Roll	12m N	Moderate	Does not extend up and down	No	Negligible	Low	No
			Yes	F008b	Woodpecker Hole	11m N	Moderate	Too shallow	No	Negligible		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
			Yes	F008c	Woodpecker Hole	11m N	Moderate	Too shallow	No	Negligible		
			Yes	F008d	Woodpecker Hole	10m N	Moderate	Too shallow	No	Negligible		
			Yes	F008e	Callus Roll	10m W	Moderate	Extends in 10cm	No	Negligible		
			Yes	F008f	Callus Roll	8m W	Moderate	Too shallow	No	Negligible		
			Yes	F008g	Callus Roll	7m N	Moderate	Extends in 8cm. Damp and rotten	No	Negligible		
			Yes	F008h	Callus Roll	6m N	Moderate	Too shallow	No	Negligible		
			Yes	F008i	Woodpecker Hole	9m S	High	Extends down 20cm. clean and dry	No	Low		
	N/A	Common ash	Yes	F009a	Woodpecker Hole	7m N	Moderate	Extends down 30cm with nesting material at bottom. A hole at back	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								extends up 15cm.				
			Yes	F009b	Loose Bark	8m W	Moderate	Too shallow	No	Negligible		
			Yes	F009c	Woodpecker Hole	4m W	Moderate	Extends down 35cm with nesting material.	No	Low		
	N/A	Common ash	Yes	F010a	Branch Cavity	7m N	Moderate	Extends down 50cm. Moderate potential once birds fledge	No	Moderate	High	Yes
			Yes	F010b	Branch Cavity	8m W	Moderate	Extends back 20cm	No	Moderate		
			Yes	F010c	Branch Cavity	6m S	High	Exposed dead branch	No	Negligible		
			Yes	F010d	Callus Roll	6m S	High	Connects with dead branch of F010c	No	Negligible		
			Yes	F010e	Woodpecker Hole		High	Extends up 30cm on end of branch	No	High		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	N/A	F011a	Ivy Cover	0 to 10 m Low	Low		No	Low	Low	No
	N/A	Common ash	Yes	F012a	Woodpecker Hole	7m E	Moderate	Extends down 15cm	No	Low	Low	No
			Yes	F012b	Woodpecker Hole	6m W	Moderate	Extends down 20cm and up 10cm	No	Low		
	N/A	Common ash	No	F013a	Woodpecker Hole	3m S	Moderate	Extends down 10cm	No	Negligible	Negligible	No
			No	F013b	Branch Cavity	5m S	Moderate	Shallow and exposed	No	Negligible		
	N/A	Common ash	Yes	F014a	Woodpecker Hole	8m NE	Moderate	Extends down 30cm with nest material. Extends up 60cm, clean and dry.	No	High	High	Yes
			Yes	F014b	Woodpecker Hole	7.5m NE	Moderate	Extends up and down 20cm	No	Moderate		
			Yes	F014c	Woodpecker Hole	6.5m E	Moderate	Extends up and	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								down 10cm				
			Yes	F014d	Woodpecker Hole	6m N	Moderate	Extends down 40cm	No	Low		
			Yes	F014e	Woodpecker Hole	7m W	Moderate	Too shallow	No	Negligible		
	N/A	Pedunculate oak	Yes	F015a	Branch Cavity	6m SW	Moderate	Next to pond	No	N/A	Moderate	Yes
			Yes	F015b	Trunk Cavity	1.5m SW	Moderate	Connects to F015c	No	Moderate		
			Yes	F015c	Branch Cavity	2.5m S	Moderate	Extends up 30cm. Connects to cavity below by 60cm	No	Moderate		
			Yes	F015d	Branch Cavity	3m S	Moderate	Extends up 20cm	No	Moderate		
	N/A	Common ash	Yes	F016a	Woodpecker Hole	7m SE	Moderate	Extends down 20cm	No	Low	High	Yes
				F016b	Other	Not specified	Not specified	Found while climbing. Extends up 80cm.	No	High		
	N/A	Pedunculate oak	N/A	F017a	Trunk Cavity	6m S	Low	Extends up and down	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								10cm. Very dry				
	N/A	Pedunculate oak	Yes	F018a	Loose Bark	2m All	Moderate	Extends up 50cm. Dry	No	Moderate	Moderate	Yes
			Yes	F018b	Branch Cavity	4m N	Moderate	Extends down 20cm, wet, cracks on top	No	Negligible		
			Yes	F018c	Branch Cavity	6m N	Moderate	Too shallow and exposed	No	Negligible		
			Yes	F018d	Callus Roll	4m E	Moderate	Open and exposed	No	Negligible		
			No	F018e	Branch Cavity	7m E	Moderate	Extends down 20cm. exposed and wet	No	Negligible		
	N/A	Common ash	Yes	F019a	Woodpecker Hole	4m S	Moderate		No	Moderate	Moderate	Yes
	N/A	Common ash	No	F020a	Other	3.5m E	Low		No	Low	Low	No
		Pedunculate oak	Yes	F021a	Woodpecker Hole	4m S	Moderate	Chicks present. Extends down 20cm	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	Yes	F022a	Ivy Cover	1m All	Low		No	Low	Low	No
	N/A	Common horse chestnut	Yes	F023a	Callus Roll	4m S	High	Extends up 50cm with damp patches but mainly dry	No	High	High	Yes
			Yes	F023b	Callus Roll	2m W	Moderate	Extends up 15cm, cobweb present	No	Moderate		
	N/A	Willow unknown/hybrid	Yes	F024a	Split	2m N	Low	Extends up 70cm. Crumbly inside	No	Moderate	Moderate	Yes
			Yes	F024b	Branch Cavity	1.5m N	Moderate	Exposed	No	Negligible		
	N/A	Common ash	Yes	F025a	Trunk Cavity	0.5m S	Moderate	Extends up 1m	No	Moderate	Moderate	Yes
	N/A	Willow - unknown/hybrid	Yes	F026a	Split	1m N	Moderate	Extends up 70cm. Multiple holes inside feature	No	High	High	Yes
	N/A	Aspen	Yes	F027a	Other	Not specified	Moderate	Extends up 1m. Dry	No	Moderate	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
WS46264	T44	Common ash	Yes	F001a	Woodpecker hole	5m SE	Moderate	Chicks present	No	Moderate	Moderate	Yes
			Yes	F001b	Callus Roll	5M W	Negligible	On branch reaching west. Shallow and exposed	No	Negligible		
	N/A	Pedunculate oak	Yes	F002a	Woodpecker Hole	5m E	Moderate	Extends in 10cm. Damp and dirty	No	Negligible	Moderate	Yes
			Yes	F002b	Other	5m E	Moderate	Extends towards trunk by 20cm. clean, dry and narrow	No	Moderate		
			Yes	F002c	Woodpecker Hole	5m W	Moderate	Extends away from trunk by 40cm. Towards trunk by 20cm.	No	Moderate		
	N/A	Crab apple	Yes	F003a	Trunk cavity	3m E	Low	Extends down 20cm.	No	Low	Moderate	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								clean and dry				
			No	F003b	Branch Cavity	4m E	Moderate		No	Moderate		
	N/A	Crab apple	Yes	F004a	Trunk Cavity	2m S	Moderate	Extends up by 30cm	No	Moderate	Moderate	Yes
			Yes	F004b	Trunk Cavity	2m NE	Moderate	Too shallow	No	Negligible		
			Yes	F004c	Branch Cavity	2.5m E	Moderate	Too shallow	No	Negligible		
	N/A	Crab apple	Yes	F005a	Trunk Cavity	2m N	Low	Too shallow	No	Negligible	High	Yes
			Yes	F005b	Branch Cavity	2.5m NW	Moderate	Long split facing tree. Extends up 30cm. clean and dry	No	High		
			No	F005c	Branch Cavity	2m S	Moderate	Extends down	No	Low		
	N/A	Crab apple	No	F006a	Trunk Cavity	2m S	Moderate	Extends down 20cm	No	Low	Low	No
	N/A	Crab apple	No	F007a	Woodpecker Hole	1.5m N	Moderate	Nesting birds present	No	Moderate	Moderate	Yes
WS40391	N/A	Common ash	Yes	F001a	Callus roll	1m SW	Moderate	Extends up 90cm. Becomes narrow	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
WS10390	N/A	Willow unknown/ hybrid	Yes	F001a	Loose bark	2.5m N	Low	Low	No	Low	Negligible	No
			Yes	F001b	Trunk cavity	1 to 5m N	Moderate	Dirty and shallow	No	Negligible		
	N/A	Willow unknown/ hybrid	Yes	F002a	Trunk cavity	1 to 5m SE	Low	Low	No	Low	Negligible	No
			Yes	F002b	Trunk cavity	1 to 5m SW	Moderate	Too shallow	No	Negligible		
			Yes	F002c	Trunk cavity	1 to 5m W	Moderate	Too shallow	No	Negligible		
	N/A	Willow unknown/ hybrid	Yes	F003a	Trunk cavity	1.5m S	Moderate	Shallow and open	No	Negligible	Negligible	No
	N/A	Willow unknown/ hybrid	Yes	F004a	Woodpecker hole	5m S	Moderate	Not surveyed – bees	No	Moderate	Moderate	Yes
			Yes	F004b	Woodpecker hole	5.5m S	Moderate	Not surveyed - bees	No	Moderate		
			Yes	F004c	Split	2m N	Moderate	Occupied by bees. Possibly suitable when vacant	No	Moderate		
ST24161	N/A	Crab apple	N/a	F001a	Split	2m W	Low	Low	No	Low	Low	No
	N/A	Crab apple	N/a	F002a	Trunk cavity	1.5m N	Moderate	Too exposed	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Crab apple	N/a	F003a	Trunk cavity	3m E	Moderate	Extends up 20cm. Clean, dry, tight	No	Moderate	Moderate	Yes
	N/A	Crab apple	Yes	F004a	Branch cavity	4m S	Moderate	Could not be climbed. Nesting birds present	No	Moderate	Moderate	Yes
	N/A	Field maple	Yes	F005a	Callus roll	5m N	Moderate	Extends up 20cm. Clean and dry	No	Moderate	Moderate	Yes
			Yes	F005b	Callus roll	7m N	Moderate	Down 20cm but wet	No	Negligible		
	N/A	Common ash	N/a	F006a	Ivy cover	3 to 12m All	Low	Extends down 10cm. Dirty and exposed	No	Negligible	Negligible	No
	N/A	Unknown	No	F007a	Loose bark	6 to 10m SE	Moderate	Low	No	Low	Moderate	Yes
			N/a	F007b	Trunk cavity	6m SE	Low	Unsafe	No	Moderate		
	N/A	Large leaved lime	N/a	F008a	Trunk cavity	1m N	Low	Unsafe	No	Low	Low	No
			N/a	F008b	Ivy cover	1m N	Low	Low	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Field maple	N/a	F009a	Trunk cavity	0.8m N	Moderate	Extends up 30cm. cobweb present. Dark and dry	No	Moderate	Moderate	Yes
ST164764	N/A	Apple tree	No	F001a	Loose bark	3m E	High		No	High	High	Yes
				F001b	Callus roll	2.5m E	Moderate	Shallow. No suitable cavity	No	Negligible		
	N/A	Common ash	Yes	F002a	Callus roll	4m E	Moderate	Shallow. No suitable cavity	No	Negligible	Negligible	No
				F002b	Branch Cavity	4m W	Moderate	Shallow. No suitable cavity	No	Negligible		
	N/A	Field maple	Yes	F003a	Branch cavity	5m N	Moderate		No	Moderate	Moderate	Yes
	N/A	Field maple	Yes	F004a	Trunk Cavity	2m W	Moderate	Shallow and wet	No	Negligible	Negligible	No
	N/A	Field maple	Yes	F005a	Branch Cavity	4m S	Moderate	No suitable cavity	No	Negligible	Negligible	No
	N/A	Apple tree	N/A	F006a	Branch Cavity	2m S	Moderate	Extends up 7cm. Woodlice	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
			N/A	F006b	Branch Cavity	1m N	Moderate	Extends up 7cm. Woodlice	No	Low		
	N/A	Apple tree	N/A	F007a	Branch Cavity	2m N	High	Extends up 50cm. Wet	No	Low	Low	No
			N/A	F007b	Branch Cavity	2m S	Moderate	In 15cm. Fairly dry	No	Low		
	N/A	Field maple	N/A	F008a	Branch Cavity	5m S	Moderate	Extends up 5cm. Dry and tight	No	Low	Low	No
U00024	N/A	Oak	No	F001a	Branch cavity	5m W	High	Shallow and exposed cavity	No	Negligible	Negligible	No
	N/A	Oak	Yes	F002a	Loose bark	5m E	High	Fragile bark	No	Moderate	Moderate	Yes
	N/A	Oak	No	F003a	Branch Cavity	4m S	High	Shallow and dirty	No	Negligible	Negligible	No
	N/A	Oak	Yes	F004a	Callus Roll	8m S	High	No cavity	No	Negligible	Negligible	No
	T15	Unknown	Yes	F005a	Trunk Cavity	7m S	High	Extends 50cm up	No	High	High	Yes
		Unknown	Yes	F005b	Trunk Cavity	5m N	High	Too shallow, wet and muddy	No	Negligible	Negligible	No
	N/A	Sycamore	No	F006a	Callus Roll	4m S	High	Shallow and very wet	No	Negligible	Negligible	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
		Sycamore	Yes	F006b	Branch Cavity	5m E	Moderate	Shallow and very wet	No	Negligible	Negligible	
	N/A	Sycamore	Yes	F007a	Callus Roll	2m S	High	Shallow and very wet	No	Negligible	Negligible	No
		Sycamore	Yes	F007b	Callus Roll	3m S	High	Shallow and very wet	No	Negligible		
	N/A	Ash - dead	Yes	F009a	Trunk Cavity	2m W	High	Extends up 50cm, dirty	No	Moderate	Moderate	Yes
U00019	N/A	Field maple	Yes	F001a	Callus roll	3m N	Moderate	Shallow and no suitable cavity	No	Negligible	Negligible	No
ST81697	N/A	Unknown	Yes	F001a	Callus roll	4m E	Moderate	Too shallow	No	Negligible	Negligible	No
U00015	N/A	Oak	Yes	F001a	Callus roll	3m W	Low	Overhanging branch	No	Moderate	Moderate	Yes
WS57193	T25	Weeping willow	Yes	F001a	Woodpecker hole	5m S	High	Extends up 5cm and down 10 cm	No	High	High	Yes
		Weeping willow	Yes	F001b	Trunk Cavity	4m N	High	Large, dry, fractured cavity	No	Low		
ST147947	N/A	Apple tree	N/a	F001a	Trunk cavity	0.5m N	High	Extends 20cm,	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								open and wide				
	N/A	Apple tree	N/A	F002a	Callus roll	1m S	High	Extends 20cm, dirty and open	No	Low	Moderate	No
			N/A	F002b	Trunk cavity	0.75 m S	Moderate	Extends 10cm in, narrow and dirty	No	Moderate		
	N/A	Apple tree	N/A	F003a	Trunk cavity	1.2m S	High	Extends 50cm, open in beginning then narrows	No	Negligible	Low	No
			N/A	F003b	Trunk cavity	1.4m S	High	Extends 60cm down	No	Negligible		
			N/A	F003c	Trunk cavity	2.2m S	High	Open and connects to cavity above (F003b)	No	Low		
	N/A	Apple tree	N/A	F004a	Trunk cavity	1.6m S	Low	Extends up 20cm, narrow	No	Moderate	Moderate	Yes
			N/A	F004b	Trunk cavity	1.7m W	Low	40cm, narrow entrance due to	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								hardened fungus				
U00039	N/A	Field maple	Yes	F001a	Callus roll	4m E	Low	Very small hole	No	Low	Low	No
	N/A	Field maple	Yes	F002a	Callus roll	4m E	Moderate	Features close together	No	Moderate	Moderate	Yes
			Yes	F002b	Trunk cavity	5m E	Moderate	Features close together	No	Moderate		
	N/A	Common ash	N/A	F003a	Trunk cavity	0.5m S	Moderate		No	Moderate	Moderate	Yes
WS40972	N/A	Willow	Yes	F001a	Callus roll	5m E	High	Too shallow	No	Negligible	Negligible	No
WS26353	N/A	Ash	Yes	F001a	Callus roll	1.5m SE	High	Extends up 40cm. Damp	No	Moderate	Moderate	Yes
			Yes	F001b	Callus roll	6m S	Moderate	No cavity	No	Negligible		
	N/A	Ash	Yes	F002a	Callus roll	2m N	High	Dry cavity extends up 80cm	No	High	High	Yes
			No	F002b	Callus roll	3m NE	Moderate	Extends 10cm in, clean and dry	No	Low		
			Yes	F002c	Callus roll	1.5m W	Moderate	Connects with F002b. 10cm up	No	Moderate		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Ash	Yes	F003a	Callus roll	1.5m SE	High	Extends 70cm upwards. Cobweb and tree decay	No	High	High	Yes
			Yes	F003b	Callus roll	1.5m W	High	Extends 80cm up	No	High		
	N/A	Field maple	Yes	F004a	Trunk cavity	1m E	Moderate	Extends further than 60cm seen with endoscope	No	High	High	Yes
	N/A	Ash	Yes	F005a	Trunk cavity	1m NE	Moderate	Extends 40cm up. Wood decay	No	Moderate	Moderate	Yes
	N/A	Ash	No	F006a	Branch cavity	2.5m NW	Moderate	Low due to decay structure	No	Low	Moderate	Yes
			No	F006b	Branch cavity	2.5m NW	Moderate	Not possible to inspect	No	Moderate		
	N/A	Ash	Yes	F007a	Trunk cavity	1.5m SE	High	Extends over a meter. Damp towards top. Dry and clean	No	High	High	Yes

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
	N/A	Common ash	No	F008a	Branch Cavity	5m S	High	Extends 25cm up. Likely birds nest	No	Moderate	Moderate	Yes
	N/A	Crab apple	No	F009a	Trunk Cavity	0.5m E	Moderate	Open cavity extends 10cm up. Clean and dry	No	Low	Low	No
	N/A	Common ash	No	F010a	Trunk Cavity	0.5m E	Moderate	Clean and dry. Extends up 80cm	No	Moderate	Moderate	Yes
	N/A	Common ash	No	F011a	Trunk Cavity	1.5m N	Moderate	Extends up 20cm. Narrow and clean	No	Moderate	Moderate	Yes
	N/A	Common ash	No	F012a	Branch Cavity	6m S	Moderate	Extends 8cm up. Clean, narrow, open	No	Low	Low	Yes
WS32177	N/A	Ash	No	F001a	Callus roll	3m S	Moderate	Very dirty entrance. Extends towards trunk 30cm and dirty at the end, but clean	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								in the middle				
			No	F001b	Callus roll	3m S	Moderate	Extends up 20cm, but a bit dusty with old cobwebs	No	Low		
	N/A	Ash	No	F002a	Callus roll	3m S	Moderate	Unable to find tree	No	Moderate	Moderate	Yes
			Yes	F002b	Branch cavity	3m S	Moderate	Unable to find tree	No	Moderate		
			No	F002c	Callus roll	7m E	Moderate	Unable to find tree	No	Moderate		
ST70292	N/A	Common horse chestnut	Yes	F001a	Branch cavity	4m E	High	No suitable cavity	No	Negligible	Negligible	No
	N/A	Common horse chestnut	Yes	F002a	Other	5m E	High	Box full of cloth. No bat could enter. Removed cloth	No	High	High	Yes
ST169342	N/A	Common ash	Yes	F001a	Trunk cavity	0.5m S	Moderate	Extends up 40cm. Dry, narrow, low to ground and cluttered.	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
WS16934	T43	Turkey oak	Yes	F001a	Branch cavity	4m E	High	Could not locate	No	Moderate	Moderate	Yes
		Turkey oak	Yes	F001b	Branch Cavity	4m W	High	Too shallow	No	Negligible		
		Turkey oak	Yes	F001c	Other	2m W	High	Extends in 5cm	No	Low		
	N/A	Turkey oak	Maybe	F002a	Branch Cavity	4m E	High	Dead. Unsafe to climb.	No	High	High	Yes
	N/A	Turkey oak	Yes	F003a	Trunk Cavity	4m W	High	Close to road	No	High	High	Yes
	N/A	Turkey oak	Yes	F004a	Woodpecker Hole	2m W	High	Extends up 15cm. Wet and dry	No	High	Negligible	No
WS49438	N/A	Common ash	Yes	F001a	Woodpecker hole	4m E	Moderate	Hibernation potential	No	Negligible	Negligible	No
WS46247	N/A	Common ash	Yes	F001a	Woodpecker hole in trunk	2.5m SE	Moderate	Too shallow	No	Negligible	Moderate	Yes
				F001b	Woodpecker hole in trunk	7m SW	Moderate	Dirty at bottom. Clean and dry where it extends 40cm up	No	High		
				F001c	Woodpecker	10m S	Moderate	Extends down 30cm	No	Low		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
					hole in trunk			where it is dirty				
				F001d	Callus roll on trunk	5m S	Moderate	Extends down 30cm. Nesting material and damp	No	Negligible		
				F001e	Callus roll on limb	6.5m SW	Moderate	Too shallow	No	Negligible		
				F001f	Woodpecker hole in trunk	6.5m SW	Moderate	Extends down 50cm. Dry and clean	No	Moderate		
				F001g	Branch cavity	4m SW	Low	Extends in 30cm, dry	No	Moderate		
				F001h	Woodpecker hole	12m S	N/A	Too shallow	No	Negligible		
				F001i	Branch cavity	8m NE	Moderate	Exposed with bird's nest	No	Negligible		
ST84283	N/A	Common ash	Yes	F001a	Branch cavity	1m N	High	Too shallow	No	Negligible	Negligible	No
				F001b	Callus roll	5m N	High	Too shallow	No	Negligible		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
				F001c	Split	5m N	High	Too shallow	No	Negligible		
ST15170	N/A	Other	Yes	F001a	Loose bark	7m NE	Low	Cavity within base of broken branch	No	Low	Moderate	Yes
		Other	Yes	F001b	Other	10m N	Moderate	Extends 20cm along limb, clean and dry, not too narrow	No	Moderate		
		Other	Yes	F001c	Other	8m N	Negligible	Shallow and dirty	No	Negligible		
	N/A	Other	Yes	F002a	Split	9m W	Moderate	Split in broken limb	No	Moderate	Moderate	Yes
			Yes	F002b	Callus roll	7.5m W	Moderate	Small cavity in split, facing up, clean and dry	No	Low		
	N/A	Other	Yes	F003a	Callus roll	5m S	Moderate	Shallow	No	Negligible	Negligible	No
			Yes	F003b	Callus roll	8m S	Moderate	Shallow	No	Negligible		
			Yes	F003c	Callus roll	6m E	Moderate	Hole in callus roll	No	Negligible		

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
								of lowest southern branch. Shallow				
			Yes	F003d	Callus roll	8m E	Moderate	Hole slightly exposed. Shallow	No	Negligible		
			Yes	F003e	Callus roll	6m E	Moderate	Small knot hole. Shallow	No	Negligible		
	N/A	Other	Yes	F004a	Trunk cavity	5m E	High	Shallow, no cavity	No	Negligible	Moderate	Yes
			Yes	F004b	Branch cavity	5m SE	Moderate	Cavity in lower branch in knot hole	No	Moderate		
			Yes	F004c	Branch cavity	5m SW	Low	Upwards facing hole on branch	No	Low		
				F004d	Other	9m SW	Moderate		No	Moderate		
	N/A	Other	Yes	F005a	Branch cavity	6m N	Low	Shallow hole under broken limb base	No	Low	Low	No
U00015	N/A	Oak	Yes	F001a	Callus roll	3m W	Low	Overhanging branch	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
WS49260	N/A	Common ash		F001a	Callus roll	2.5m SE	Low	Two holes close together	No	Low	Low	No
		Common ash		F001b	Other	8m SE	Low	Canker in trunk	No	Low		
	N/A	Pedunculate oak		F002a	Callus roll	8m SE	Low	Callus roll in place of fallen branch	No	Low	Low	No
WS1497	N/A	Pedunculate oak	Yes	F001a	Callus roll	6m NW	Low	Small opening	No	Low	Low	No
			No	F001b	Other	12m N/A	Low	Decaying crown and branches	No	Low		
WS7630	N/A	Sycamore	Yes	F001a	Branch cavity	7.5m SE	Low	Upwards facing branch cavity	No	Low	Low	No
			Yes	F001b	Callus roll	8m S	Low	Small callus notch close to an upwards facing cavity	No	Low		
	N/A	Sycamore	Yes	F002a	Branch cavity	Not specified	Low	Branch cavity on limb of tree	No	Low	Low	No

Land parcel reference no.	Tree no.	Tree species	Safe to climb?	Sub feature	Feature	Feature location	BT1 Feature potential	Details	Evidence of bats	Revised feature potential	Tree potential	Further survey?
U00027	N/A	Pedunculate oak	No	F001a	Trunk cavity	Not specified	High	Dead tree	No	High	High	Yes
	N/A	Pedunculate oak	Yes	F002a	Branch cavity	Not specified	Low	N/A	No	Low	Low	No
WS62700	N/A	Pedunculate oak	Yes	F001a	Woodpecker hole	Not specified	Moderate	Just in from Ash tree on edge of field	No	Moderate	Moderate	Yes

Table F.2: Summary of tree bat roost potential following the preliminary BRP assessment

Land Parcel Reference No.	Tree number	Feature number	Tree potential	No. of emergence re-entry surveys recommended
ST153085	T9	F001	High	3
	N/A	F004	Moderate	2
	T10	F005	Confirmed	3
	T11	F010	High	3
	T12	F011	Confirmed	3
	N/A	F027	Moderate	2
	T13	F032	Confirmed	3
	N/A	F038	Moderate	2
	N/A	F039	Moderate	2
ST128002	T4	F001	High	3
	N/A	F002	Moderate	2
	T5	F003	Confirmed	3
	T6	F004	Confirmed	3
	T7	F007	High	3
	T8	F009	High	3
	N/A	F013	Moderate	2
WS75059	N/A	F003	Moderate	2
	T26	F008	Confirmed	2
	N/A	F010	Moderate	3
WS31054	T24	F001	High	3
ST97976	T2	F004	High	3
WS16934	N/A	F001	Moderate	2
	T18	F002	High	3
	T19	F003	High	3
WS75681	T27	F001	High	3
	T28	F002	High	3
	T29	F005	High	3
	T30	F006	High	3
	T31	F007	High	3
	T32	F008	High	3
	T33	F009	High	3
	T34	F011	High	3
U00029-43	T16	F017	High	3
	N/A	F018	Confirmed	3
	T17	F019	High	3
WS26353	T20	F002	Confirmed	3
	T21	F003	High	3
	T22	F004	High	3
	T23	F007	High	3
WS46264	T44	F001	Moderate	2
ST106737	T35	F002	Moderate	2
WS1856	T42	F003	Moderate	2
U00010	T14	F001	High	3
ST103525	T3	F001	High	3
U00024	T15	F005	High	3
WS57193	T25	F001	High	3

Buildings

Table F.3: Results of preliminary building BRP surveys

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS64843	F001	Two-storey, 1940s residential building with single storey annexe. Relatively good condition.	F001a	Gaps under roof tiles/felt 6m high on the west side	None	Low	Outside scheme footprint	No
			F001b	Gaps under roof tiles/felt 4m high on west side				
WS49557	F001	1980s one-storey residential house. Good condition and well-maintained.	F001a	Gaps under roof tiles/felt 3m high on south side	None	Moderate	>40m	No
WS45945	F001	Two-storey house with solar panels built in 1970s. Very good condition	No features	N/A	None	Negligible	Outside scheme footprint	No
	F002	Residential building, 10 years old and in very good condition.	No features	N/A	None	Negligible	Outside scheme footprint	No
WS43164	F001	Thirty-year-old residential house, recently refurbished.	F001a	Missing grate between roof and wall 3m high on east side	None	High	>120m	No
			F001b	Gap under roof tiles/felt 5m high on all side				
	F002	Well-maintained residential building built 40 years ago.	F002a	Gap along edge of wall with access to soffit box. 6m high on west side	None	High	>120m	No
			F002b	Slight gap around ventilation pipe 3m high on west side				
			F002c	Gaps along edge between tiles and roof 3m high on east side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F005	Two-hundred-year old stone wall.	F005a	Cavity in wall 1m high on south side	None	High	>120m	No
			F005b	Cavity in wall 1.5m high on south side				
			F005c	Many cavities along top of wall 2m high along south side				
			F005d	Cavities in wall covering rest of the wall along the south side				
			Other	Too many features				
	F006	Stone building more than 200 years old.	F006a	Gap between wall and roof 5m high on south side	None	High	>120m	No
			F006b	Gap between wall and roof 7m high on west side				
			F006c	Gap between wall and roof 5m high on north side				
	F009	Larger complex building with three floors and over 300 years old. Fairly well maintained.	F009a	Gaps along top of window. Four windows on east side of main section (top left, top middle, middle left and middle). 10m high on east side	None	High	>120m	No
			F009b	Numerous loose shifted tiles on northern extension facing the east				
			F009c	Cavity in wall. Hole around rotten wood				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
				beam. 4m high on east side				
			F009d	Cavity in wall 8m high on west side				
			F009e	Cavity in wall in similar location to previous features all along the northern side				
			F009f	Cavity in wall 3m high on west side				
			F009g	Gap under end ridge tile 4m high on west side				
			F009h	Missing brick work on southern side at corner of wall behind drain pipe 3m up				
			F009i	Missing mortar 3m high on southern side				
			F009j	Wooden boarding above wall on western side 10m high. Top and edge of roof is rotten allowing possible access				
	F012	Forty-year-old bungalow in good condition	F012a	Gap at gable end under ridge tile 3.5m high on southern side	None	High	>120m	No
			F012b	Gap between roof tile and soffit box 2.5m high on southern side				
			F012c	Slightly shifted tiles 2.5m on southern side				
			F012d	Gap at gable end under ridge tile 3.5m high on western side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F012e	Gap between roof tile and soffit box				
	F013	Forty-year-old bungalow in good condition. Tiles look tight.	n/a	No features	None	Negligible	Outside scheme footprint	No
	F014	Two-storey building in good condition.	F014a	Gap at top of gable end above hanging tile 4m high on southern side	None	Moderate	>40m	No
			F014b	Gap between wall and roof along length of wall 5m high on northern side				
	F015	Forty-year-old residential block comprising two, two floor houses. Good condition. Lead flash all tight with no visible damage.	N/A	No features	None	Negligible	Outside scheme footprint	No
	F016	Twenty-years-old and in good condition. No visible condition.	F016a	Open roof access point. Board shifted to side. Could be closed and reopened. Located on southern side approximately 2.5m high	None	High	>120m	No
	F018	Ten-year-old house in very good condition. Groundsman building for storing field equipment.	N/A	No features	None	Negligible	Outside scheme footprint	No
	F019	Free-standing brick wall over 100 years	F019a	Cavity in wall 2m high on northern side	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		old. In good condition and recently repainted.						
WS34119	F001	Good condition 25-year-old house. Well maintained.	F001a	Gap under roof tiles/felt. Owner not in to access around the back of the property but likely has no features	None	Low	Outside scheme footprint	No
	F002	Twenty-five-year old house. Good condition. Fairly tight tiles.	F002a	Gap at edge of roof, between tiles and roof underlay 2.5m high on southern side	None	Low	Outside scheme footprint	No
			F002b	Access to soffit box 2.5m high on southern side				
WS22485	F001	Two-storey house built in 1905.	F001a	Gap between roof tile and roof 5m high on northern side	None	Moderate	>40m	No
			F001b	Access to soffit box 4m high on northern side				
			F001c	Gap between roof tile and roof 5m high on southern side				
			F001e	Gap between roof tile and roof 4m high on southern side				
			F001f	Access to soffit box 4m high on southern side				
WS14265	F001	Two-storey cottage in good condition. Roof ridge tiles have recently been repainted.	F001a	Gap in corner behind barge board that could lead to roof. Signs of chewed wood. Located 5m high on south-western side	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F001b	Gap under rooftiles/felt in corner behind barge board that could lead to roof. Signs of chewed wood 5m high on north-east side				
			F001c	At base of chimney 6m high on north-east side				
			F001d	Gaps under tiles at edge of roof extension 2m high on southern side				
	F002	Fifteen-year-old garage. Small with slight damage.	F002a	Access to soffit box on southern side 2m high	None	Moderate	>40m	No
			F002b	Access to soffit box on south-western side 2m high				
WS9475	F001	Residential building	F001a	Access to soffit box 2.5m high on western side	None	High	>120m	No
			F001b	Cavity in wall 4m high on western side				
			F001c	Under tile at corner of western side approximately 2.5m high				
			F001d	Gap at corner edge tile 3m high on western side				
WS3510	F001	1980s build residential bungalow. Brick walls with some wooden facias on gable end. Multiple gaps were wall	F001a	Gap between roof tile and roof 4m high on western side	None	Moderate	>40m	No
			F001b	Gap between roof tile and roof 4m high on western side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		joins roof at various orientations.	F001c	Gap under roof tiles/felt 8m high on northern side				
WS2116	F001	Two-storey house built in 1920s as told by owner during survey.	F001a	Access to soffit box 2m high on northern side	None	Moderate	>40m	No
			F001b	Soft box gap providing access 2m high on northern side				
			F001c	Gap between roof and wall 2m high on northern side				
			F001d	Gap between roof tile and roof 4m high on southern side				
			F001e	Access to soffit box 4m high on south side				
	F002	One storey residential building built in 1920s.	F002a	Plastic sheeting covering part of roof on the western side approximately 4m high		Low	Outside scheme footprint	No
	F003	1920s, one-storey garage with two doors.	No features	N/A	None	Negligible	Outside scheme footprint	No
ST166082	F001	Residential house that is 80 years old. Roof was refurbished 10 years ago. In good condition.	No features	N/A	None	Negligible	Outside scheme footprint	No
S165622	F001	Two-storey 1980s residential house.	F001a	Gap between roof tile and roof 3.5m high on southern side	None	Moderate	>40m	No
			F001b	Access to soffit box 4m high on eastern side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F001c	Access to soffit box 4m high on northern side				
	F002	1980s residential building, two-storeys	F002a	Gap between roof tile and roof 3m high on southern side	None	Low	Outside scheme footprint	No
	F003	1980s residential building, one-storey.	F003a	Gap between wall and corrugated asbestos roofing on the northern side	None	Moderate	>40m	No
			F003b	Gap between roof tile and roof on western side approximately 2m high				
ST158534	F001	Twenty-two-year-old bungalow in very good condition.	F001a	Gap along wall top on western side, where the roof hits on top providing 20cm of access.	None	High	>120m	No
			F001b	Gap between tiles and boarding at edge of roof, along entire length of western side				
			F001c	Cavity in wall with 3cm of access along western side				
			F001d	10cm gap under ridge tile at end				
			F001e	10cm gap under ridge tile at end				
ST156618	F001	Residential bungalow. Approximate 1980s construction. Predominantly brick with wooden facia	F001a	Missing mortar on southern side	None	Moderate	>40m	No
			F001b	Gap between roof tile and roof providing 10cm access 5m high on southern side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		boards at one of the gable ends.	F001c	Gap between roof tile and roof with 10cm of access on eastern side				
			F001d	Missing mortar with 5cm of access on northern side				
			F001e	Gap between roof tile and roof with 5cm access on northern side				
ST149166	F001	200-year-old with newer extensions, Two storey house, in reasonable condition	F001a	Several slightly shifted tiles on extension 3m high on west side	None	High	>120m	No
			F001b	Raised tile at base of chimney 6m high on east side				
			F001c	Gap between wooden panelling 5m high on east side				
			F001d	Missing mortar under ridge tile 6m high on south side				
			F001e	Damaged corner of roof next to window 4m high on south side				
			F001f	Gap between roof tile and roof 4.5m high on south side				
			F001g	Raised tile at bottom corner of roof 3m high on south side				
ST124496	F001	Cottage more than 100 years old in reasonable condition. Two-storeys	F001a	Number of loose tiles 5m high on east side	None	Low	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		and split into two houses.						
ST103525	F001	Small wooden summer house approximately 30 years old.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F002	Small wooden summer house approximately 30 years old.	F002a	Hole with missing grate below roof overhang along north and south side of building. 2.5m high	None (internal assessment undertaken)	Moderate (from external assessment)	0.039km E	Yes – dusk and dawn
	F003	Small wooden summer house approximately 30 years old.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F004	Small wooden summer house approximately 30 years old.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F005	Shower and toilet block approximately 30 years old.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F006	Thirty-year-old detached, two-storey-house in good condition.	F006a	Gap under lead flashing at base of chimney 7m high on north west side of two-storey detached house. 5cm of access	None - Access denied for internal assessment	Moderate (from external assessment)	0.052km SE	Yes – Two dawns and a dusk
			F006b	Gap at corner of roof 6m high on south side				No
	F007	Twenty-year-old single-storey reception building with garage.	No features	N/A	Likely pipistrelle droppings identified at gable end of south side during	Negligible (from external assessment)	0.072km SE	Yes – two dusks and a dawn

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
					internal assessment			
ST100525	F001	Semi-detached, two-storey-house in good condition. Approximately 30 years old.	F001a	Semi-detached two-storey building in good condition. Gaps under roof tiles 3m high on east side	None	Moderate	0.107km SE	Yes – dusk and dawn
			F001b	Gap under barge boarding 2.5m high on north side	None			
ST97457	F001	Three-storey house built in 1905	No features	N/A	None	Negligible	Outside scheme footprint	No
ST74920	F001	Two storey semi-detached property with extension into the roof. Likely roof space. Side, single storey annex attached in the north.	F001a	Gap between roof tile and roof	None	Low	Outside scheme footprint	No
			F001b	Gap under felt roof and window 3m high on west side	None			
			F001c	Gap under roof tiles/felt 4m high on east side	None			
ST73357	F001	Three-storey bungalow. Three pitched rooves and one separate flat roof. Good condition with limited access points. Adjacent to road.	F001a	Gap under roof tiles/felt	None	Low	Outside scheme footprint	No
			F001b	Gap under roof tiles/felt	None			
ST57910	F001	Two storey semi-detached residential property with roof space. Single storey annex on the north side. Constructed in 1946.	F001a	Gap under roof tiles/felt	None	Low	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS33439	F001	Old out building in poor condition.	F001a	Partial feature of internal roof boarding located 4m high on the east side	None	Moderate	>40m	No
			F001b	Missing mortar near apex 4m high on east side providing 150cm of access	None			
			F001c	Missing mortar 4m high on east side providing 50cm of access	None			
	F002	Old abandoned stables that are 150 years old. Lots of open access parts.	F002a	Broken window with 20cm of access	None	Low	Outside scheme footprint	No
			F002b	Gap under roof tiles/felt with 10cm access	None			
			F002c	Gap between facia boarding with 100cm access on southern side	None			
			F002d	Hole in felt/sagging with 30cm access on the southern side	None			
	F003	150-year-old stables in poor condition.	F003a	Wall cavity with 10cm access approximately 1.5m high on the western side	None	Moderate	>40m	No
			F003b	Lifted ridge tiles with 10cm access, 6m high on the eastern side	None			
			F003c	Damaged corner on the eastern side, approximately 6m high with 15cm of access	None			
			F003d	Numerous lifted tiles with 15cm of access and orientated to the west	None			

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F004	Farm out-buildings. 200 years old in reasonably good condition.	F004a	Gap at apex gable end with 10cm of access located 9m high on the northern side	None	High	>120m	No
			F004b	Missing mortar with 5cm access 7m high on northern side	None			
			F004c	20cm of access located 4m high on northern side	None			
			F004d	Two gaps in walls next to drain pipe. 20cm of access 3m high on eastern side	None			
			F004e	Gap under roof tiles/felt with 10cm access 3m high on eastern side	None			
			F004f	Wall cavity with 10cm access on eastern side	None			
			F004g	Gap at apex with 10cm access located 9m high on southern side	None			
			F004h	Missing mortar on gable face on southern side	None			
			F004i	Gaps in mortar in wall near chimney with 8cm access on northern side	None			
			F004j	30cm of potential access located 2m high on northern side	None			
	F005	Farm house with attached garage over 100 years old.	F005a	Gap under roof tiles/felt providing 10cm of potential access located	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
				6m high on the northern side				
			F005b	Gap along edge of facia boarding with 200cm of access along the northern side	None			
			F005c	Cavity in wall with 20cm of access on the southern side	None			
			F005d	Gap under roof tiles/felt with 20cm access on southern side	None			
			F005e	Gap under roof tiles/felt with 20cm of access on eastern side	None			
WS16480	F001	Two-hundred-year old residential building including refurbishment. In good condition.	F001a	Gap under barge boarding 8m high on western side	None	High	>120m	No
			F001b	Access to soffit box located 2.5m high on northern side	None			
			F001c	Gap above wall under facia 4m high on northern side	None			
			F001d	Access to soffit box 5m high on northern side	None			
ST41862	F001	End of terrace residential building. Approximately 20 years old in good condition.	F001a	Gap at corner of eves 6m high on south-west side	None	Moderate	>40m	No
			F001b	Access to soffit box 2.5m high on northern side	None			

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F002	N/A	F002a	Gap between roof tile and roof 3m high on eastern side	None	Low	Outside scheme footprint	No
ST93263	F001	Bed and breakfast. In good condition and well maintained.	No features	No features	None	Negligible	Outside scheme footprint	No
ST154781	F001	Fifty-year-old residential building in good condition.	F001a	No features identified	None	Confirmed		No
U00006; U00007: U00008: U00009: ST67688	F004	Wooden shed.	F004a	Open building night roost only – wooden shed	None	Low	Outside scheme footprint	No
	F006	Brick wall, metal roof, wooden frame.	F006a	Open building night perch only – brick wall, metal roof, wooden frame	None	Low	Outside scheme footprint	No
WS2907	F001	Residential house	No features	N/A	None	Negligible	Outside scheme footprint	No
	F002	Garage	No features	N/A	None	Negligible	Outside scheme footprint	No
	F003	Shed in poor condition	F003a	Broken window 2m high on eastern side	None	Moderate	>40m	No
U00029; U00030: U00031; U00032; U00033; U00034; U00037; U00038; U00039; U00040;	F001 (U00033)	Approximately 200-year-old residential building in good condition. Main farm house with two-storeys and a modern extension.	F001a	Gap under roof tiles/felt 5m high on northern side	None	High	>120m	No
			F001b	Loose tiles next to feature F001a located 5m high on northern side				
			F001c	Gap under roof tiles/felt 3m high on northern side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
U00041; U00042; U00043			F001d	Missing mortar near corner top of wall on the northern side approximately 5m high				
			F001e	Missing tile near ridge 7m high on western side				
			F001f	Shifted tiles plus a broken tile on the eastern side				
			F001g	Gaps along under facia boarding on the southern side				
			F001h	Ventilation gap near apex				
			F001i	Missing mortar near window				
			F001j	Shifted tiles plus a broken tile				
			F001k	Ventilation slit				
			F001l	Gaps along bottom of facia boarding				
			F001m	Two missing tiles on corner of roof				
			F001n	Shifted tiles located 5m high on southern side				
			F001o	Missing mortar next to window on the southern side approximately 4.5m high				
			F001p	Gap between wall and roof on southern side 4.5m high				
	F002 (U00033)		F002a	Ventilation gaps along ridge tiles along all of	Brown long eared bat	Confirmed (from	>120m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		Approximately 200-year-old stables in reasonable condition.		building approximately 4m high	droppings discovered during initial assessment on top of freezer.	external assessment)		
			F002b	Gap along top of wall behind facia boarding 3m high on southern side				
			F002c	Missing/cracks in mortar on inside wall 3m high on western side				
			F002d	Lifted tiles 4m high on eastern side				
			F002e	Missing bits of mortar along edge of sloped wall 3m high on northern side				
			F002f	Multiple lifted tiles on northern side				
			F002g	Gap at bottom of facia boarding 4m high on northern side				
			F002h	Missing mortar next to facia boarding 3m high on southern side				
			F002i	Yes – droppings on top of freezer. Possible feeding perch for BLE				
	F003 (U00033)	200-year-old storage barn in reasonable condition. Regularly used.	F003a	Large opening 1m high on eastern side	None	High	0.564km NE	No
			F003b	Several lifted tiles 5m high on eastern side				
			F003c	Gap under sloped facia boarding 4m high on northern side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F003d	Gap under facia boarding 5m high on western side				
			F003e	Large opening 2m high on southern side				
			F003f	Several bits of missing mortar 2m high on southern side				
			F003g	Barge boarding 5m high on southern side				
			F003h	Large opening 2m high on western side				
			F003i	Gaps under facia boarding				
			F003j	No features				
			F003k	No features				
	F004 (U00033)	Office as part of an annex to the barn. A new build, approximately 20 years old.	F004a	Lots of lifted tiles on the southern side	None	High	0.567km NE	No
			F004b	Access to soffit box 2m high on south-western side				
			F004c	Gap at apex 4m high on western side				
			F004d	Gaps into eves along entire length of northern side				
			F004e	Multiple lifted tiles on northern side				
	F005	Open barn used for internal horse walking.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F006	Stables. Open building with gaps under tiles	No features	N/A	None	Low	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F007	Cattle shed	No features	N/A	None	Negligible	Outside scheme footprint	No
	F008	Horse stable	No features	N/A	None	Negligible	Outside scheme footprint	No
	F009	Storage outbuilding	No features	N/A	None	Negligible	Outside scheme footprint	No
	F010	Storage building	No features	N/A	None	Negligible	Outside scheme footprint	No
	F011 (U00038)	Recently refurbished cottages attached to each other	F011a	Multiple lifted tiles 6m high on the southern side	None	Negligible	Outside scheme footprint	No
			F011b	Gaps between wall and roof 7m high on eastern side				
			F011c	Gaps between wall and roof 7m high on southern side				
			F011d	Gaps between wall and roof 8m high on northern side				
			F011e	Gaps at top of doors on northern side leading into storage area				
			F011f	Multiple lifted tiles 10m high on northern side				
			F011g	Missing tile 7m high on southern side				
			F011h	Gaps along eves at gable 8m high on western side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F011i	Cellar located on northern side				
U00022	F001	Residential house.	F001	Lifted tile next to chimney at a residential house. Gap next to boarding. Evidence of birds.	None	Low	Outside scheme footprint	No
	F002	Garage	F002	Some lifted tiles along ridge of garage roof	None	Low	Outside scheme footprint	No
	F003	Wooden dog kennels	No features	N/A	None	Negligible	Outside scheme footprint	No
	F004	Small concrete panel shed with asbestos corrugated roof.	F004	Gaps along edge under roof.	None	Low	Outside scheme footprint	No
WS1856	F001	Small open horse shed.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F002	Horse sheds	No features	N/A	None	Negligible	Outside scheme footprint	No
	F003	Open wooden shelter.	No features	N/A	None	Negligible	Outside scheme footprint	No
WS31054	F001	Large open barn, with metal roof and concrete walls.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F002	Large open metal barn, storage	No features	N/A	None	Negligible	Outside scheme footprint	No
	F003	Residential house	No features	N/A	None	Negligible	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS40390	F001	Garage in good condition.	F001	Small bit of mortar missing along the north edge of the roof corner	None	Low	Outside scheme footprint	No
	F002	Residential house in very good condition.	F002	Some wooden hanging tiles that have warped slightly offering limited roosting opportunities	None	Low	Outside scheme footprint	No
	F003	Very old stone steeple with major cracks in it. Large open front.	F003a	Large crack in corner inside along north-west side	None	High	>120m	No
			F003b	Large open roof 7m high				
	F004	Old building used for growing mushrooms. In very bad condition with lots of open access points and large cracks. Built in 1930s.	F004a	Nine open doors on southern side	None	High	>120m	No
			F004b	Large open rooms, with signs of water coming through the ceiling				
			F004c	Gap along length of the wall between the roof on eastern side				
			F004d	Hole in wall 0.25m high on northern wall				
			F004e	Crack in wall 1.5m high on northern wall				
	F005	Old outbuilding built around 1940. Used for wood storage.	F005a	Large open access 2m high on south-west side	Droppings and feeding remains from brown long eared bat and possibly Lesser horseshoe bat.	Confirmed (from external assessment)	>120m	No
			F005b	Missing door on northern side				
			F005c	N/A				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS64408	F001	Storage building. Not used very often. A little bit damaged.	F001a	Gap between roof and wall on northern side 3m high	Pipistrellus sp. droppings discovered during internal assessment	High (from external assessment)	Within footprint	Yes – two dawns, two dusks
			F001b	Gap in wall 3m high on northern side				
			F001c	Hole in wall, missing exhaust pipe on northern side				
			F001d	Gaps between corrugated sheet and boarding 4m high on northern side				
			F001e	Gap around metal shutter door 4m high on east side				
WS77247	F001	Residential building in very good condition. Recently refurbished.	F001a	Missing mortar at edge, at the corner of roof on eastern side	None	Moderate	>40m	No
			F001b	Gap under roof tiles/felt 3m high on northern side				
	F002	Metal frame, corrugated asbestos roof and breeze block walls. Sheep and cows kept here.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F003	Small garage with skylights. Access points to the inside.	No features	N/A	None	Negligible	Outside scheme footprint	No
ST73874	F001	Two-storey residential property with adjoined two-car garage. Likely roof space on main house.	F001a	Gap under wooden facia board with 10cm access on western side	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
ST124161	F001	Two-storey residential building with extension into the roof.	F001a	Gap under facia potentially leading into the roof space with 4cm access on western side	None	Moderate	>40m	No
			F001b	Gap under facia board with 10cm access				
			F001c	Gap between roof tile and roof with 10cm access on southern side				
ST139191	F001	Residential bungalow with glass conservatory on east side.	F001a	Gaps under roof tiles/felt with 5cm access on southern side	None	Moderate	>40m	No
			F001b	Gaps under roof tiles with 5cm of access on the northern side				
ST156605	F001	Single-storey disused barn/shed in poor condition.	F001a	Open doorway of barn covered in bramble.	None	Moderate	>40m	No
			F001b	Access to soffit box along majority of north side of building with 2cm of access				
ST156617	F001	Residential bungalow.	F001a	Gaps at gable ends under roof tiles with 5cm of access on northern side	None	Moderate	>40m	No
			F001b	Gaps at gable ends under roof tiles which may lead into roof space on southern side				
ST171250	F001	Residential bungalow at the end of a cul-de-sac. Built in 1980s	F001a	Gaps under roof tiles/felt of residential bungalow with 5cm access 6m high on south-east side	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		approximately. Pitched, tiled roof.	F001b	Gaps under roof tiles/felt of residential bungalow with 5cm access 6m high on north-west side				
			F001c	Gaps under roof tiles/felt of residential bungalow with 5cm access 6m high on north-east side				
WS4686	F001	One-storey out building. Recently renovated in the last twenty-years. Pitched roof with ridged tiles.	F001a	Gap under facia board with 5cm access on eastern side. Potentially leads into a roof space.	None	Moderate	>40m	No
			F001b	Gap under facia board with 5cm access on western side				
			F001c	Gaps under roof tiles /felt with 5cm of access on southern side				
WS7823	F001	Two storey semi-detached house with roof space. 1700s construction according to owner. Single storey conservatory extension on north side. Slate roof.	F001a	Gap between roof tile and roof providing 15cm of access on the eastern side	None	Moderate	>40m	No
			F001b	Gaps under roof tiles/ felt with 3cm of access 10m high on eastern side				
			F001c	Gap into eaves which may lead into the roof space. 10cm of access, 8m high on eastern side				
			F001d	Missing mortar providing 5cm of access 6m high on northern side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS19231	F001	Two storey semi-detached residential building. Adjoined garage in the north. Less than 30 years old.	F001a	Apex of gable end. Potential to lead to roof space with 5cm of access approximately 15m high on northern side	None	Moderate	>40m	No
WS20144	F001	Two storey residential property with roof space. Single storey annex to the west which is adjoined to the adjacent property. A single storey garage is adjoined to the property in the east.	F001a	Gaps into eaves. Difficult to see due to black paint. 5cm access 6m high on south side. Bird dropping staining means likely access.	Owners comments suggested that there were potential bat droppings of an unknown species within the loft.	Moderate (from external assessment)	>40m	No
			F001b	Gaps into eaves. Difficult to see due to black paint. 5cm access 6m high on north side. Bird dropping staining means likely access				
	F002	Single storey car port with false ceiling and roof space. Adjoined in the west to a workshop owned by the adjacent property. Approximately 20 years old.	F002a	False ceiling with over 1m of access. 2m high on south side. Access to roof space is inside the building, but can be surveyed from outside. No access to north side of building.	None	Moderate	>40m	No
			F002b	Gaps under roof tiles/felt. 3cm of access 5m high on south side				
WS21427	F001	Two storey residential building, converted from old farm building.	F001a	Gaps between roof tile and roof. Three examples on east side of the roof	Owner reports seeing bat droppings of	Moderate (from external assessment)	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		Conversion approximately 20years old. Single storey double garage attached on north side. Wooden single storey annex on south side attached to adjacent property.	F001b	Top of garage door and roof. Access along all doors on east side	an unknown species in the roof space.			
			F001c	Gaps under roof tiles /felt with 20cm access on western side				
			F001d	Gaps between roof tile and roof. Four on west side and one on east. Located on the north end of the roof				
			F001e	Three gaps between roof tile and roof on west side				
			F001f	Gap between roof tile and roof on south side				
			F001g	Gap between roof tile and roof where chimney meets roof on south side				
	F002	Out building used as a workshop with a false ceiling installed. Owner said this was due to previous amount of bat droppings. Adjoined to garage of next door's property in the east.	F002a	Gaps under roof tiles/felt with 5cm access on north side. Various examples over north side of roof. Moderate due to owner's comments	Possible bat droppings of unknown species causing the false ceiling to be installed.	Moderate (from external assessment)	>40m	No
			F002b	Gaps under roof tiles/felt. Various examples over south side of roof. Moderate due to owner's comments				
WS42064	F001	Single-storey property with extension into	F001a	Access to soffit box on south side	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		roof. Built in 2005 with minimal roof space. Directly adjacent to road.	F001b	Gap into eaves on south side				
			F001c	Access to soffit box on north side				
			F001d	Access to soffit box on north side				
WS42284	F001	Two-storey residential property with slate roof. Over 200 years old with likely roof space.	F001a	Gaps into eaves 8m high on west side		Moderate	>40m	No
			F001b	Gap between roof tile and roof 8m high on east side				
			F001c	Gaps into eaves 8m high on west side				
WS42578	F001		F001a	Gaps under roof tiles / felt 2m high on west side	None	Moderate	>40m	No
			F001b	Gap between roof tile and chimney 15m high on south side				
			F001c	Between roof tile and chimney 20m high on east side				
			F001d	Between roof tile and chimney 10m high on east side				
WS43258	F001	Two storey residential cottage, two separate properties. Renovated approximately 30 years ago. Roof space.	F001a	Gap under wooden facia board	None	Moderate	>40m	No
			F001b	Gap under wooden facia board				
	F002	Single-storey farmyard shed attached to the	F002a	Facia board 3m high on west side	Lesser horseshoe		>120m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		cottage at F001. Not in regular use. Over 100 years old.	F002b	Open door on west side	bat droppings discovered during internal assessment	High (from external assessment)		
			F002c	Open door on north side				
	F003	Metal barn building.	No features	N/A	None	Negligible	Outside scheme footprint	No
	F004	Farm storage outbuilding with corrugated roof and skylight windows. In poor condition.	F004a	Open doorways. Further survey only required if within footprint	None	Low	Outside scheme footprint	No
	F005	Workshop in poor condition. Very open space.	F005a	Open door on south side. Further survey only required if within footprint	None	Low	Outside scheme footprint	No
	F006	Large barn outbuilding used for storing chickens. Windows have been chicken wired over.	N/A	N/A	None	Negligible	Outside scheme footprint	No
	F007	Outbuilding in reasonable condition. Slate roof and wooden frames.	F007a	Three slipped tiles 10m high on south side	None	Moderate	>40m	No
			F007b	Missing pain of glass in window 50m high on south side				
			F007c	Door left ajar on south side				
			F007d	Raised tiles 30m high on north side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F008	Very recently built residential property.	No features	N/A	None	Negligible	Outside scheme footprint	No
ST154781	F001	Residential building approximately 50 years old in good condition.	No features	N/A	None	Negligible	Outside scheme footprint	No
ST152449	F001	N/A	F001a	Multiple gaps under tiles along gully on northern side	None	Low	Outside scheme footprint	No
U00016	F001	Residential building with two chimneys, concrete tiles and a conservatory. Built in the 1950s.	F001a	Gap under roof tiles/felt on south aspects of roof	None – Access denied for internal assessment	Moderate (from external assessment)	0.037km N	Yes – one dawn, two dusks
			F001b	Loose flashing on south aspects of roof				
U00017	F001	Brick stone outbuilding with skylight windows.	F001a	Gaps under asbestos roof on south side	None	Low	Outside scheme footprint	No
WS33009	F001	Rendered two-storey brick residential building with ridge tiles.	F001a	Gaps under roof tiles/felt 6m high on north side	None (internal assessment undertaken)	Moderate (from external assessment)	0.012km N	Yes – dusk and dawn
			F001b	Gaps under weather boarding 2m high on east side				
			F001c	Multiple gaps above gutter on all corners on northern side approximately 2m high				
			F001d	Gaps under boarding of dormer 6m high on west side				
WS44543	F001	Rendered two-storey residential building with clay tiles and skylight windows.	F001a	Gap under soffit boarding 3m high on east side	None	Low	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS64402	F001	Stone built 2 storey office with concrete tiles and pitched roof.	F001a	Gaps under roof tiles/felt on all four sides approximately 6m high	None	Moderate	>40m	No
			F001b	Other. 4m high on north side				
			F001c	Gap between stone and soffit boarding on north and south faces approximately 2m high				
			F001d	Holes in stonework where pipes come out 5m high on north west side				
	F002	Warehouse with stone and metal walls.	F002a	Gaps under weather boarding all way round the building between 2 and 8 m high	None	Low	Outside scheme footprint	No
			F002b	Gaps under asbestos tiles on W and E faces approximately 8m high				
	F003	Warehouse with stone and metal walls. Half metal roofing, half asbestos roofing.	F003a	Gaps under weather boarding and access to soffit box. 8m high on north side	None	Low	Outside scheme footprint	No
			F003b	Gaps under asbestos tiles 8m high on west side				
	F004	Stone built house with ridged clay tiles.	F004a	Gap under roof tiles/felt on both sides of roof approximately 8m high	None	High	>120m	No
			F004b	Gap under roof tiles/felt under flat clay tiles of porch approximately 2m high on north west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F005	Stone built garage with ridge clay tiles	F005a	Gap under roof tiles/felt 8m high on west side	None	Moderate	>40m	No
	F006	Stone built residential abandoned building with ridged clay tiles.	F006a	Gap under roof tiles/felt on all elevations 8m high	None	High	>120m	No
			F006b	Gaps under weather boarding all elevations				
	F007	Stone built residential building with clay ridged tiles. Multiple extensions made from stone and brick. Outbuilding attached at back of building has clay tiles.	F007a	Tiles with gaps under at edge of roof on north and south facing roofs 8m high	None	High	>120m	No
			F007b	Gaps under weather boarding 6m high on north side				
			F007c	Loose flashing 4m high on south side				
			F007d	Cavity in western wall 4m high				
ST128002	F001	Large open, bard outbuilding for storing straw and cattle.	N/A	No features	None	Negligible	Outside scheme footprint	No
	F002	Disused outbuilding approximately 60 years old. Missing one side of the building.	F002a	Missing wall on eastern side with 500c of access.	None	High	0.189km N	Yes – one dusk and two dawn surveys
			F002b	Wall cavity with 200cm access on east side approximately 1m high.				
			F002c	Cluster of four small holes on inside of wall, 2m high on the north side. Approximately 8cm of access				
			F002d	Cluster of four small holes on south side with				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
				8cm access approximately 2m high				
			F002e	Gaps in missing budget providing 100cm of access approximately 3m high				
	F003	Large barn made of corrugated metal.	N/A	No features	None	Negligible	Outside scheme footprint	No
	F004	Storage building with corrugated asbestos roof and sheeted walls.	F004a	Storage, not well maintained. corrugated asbestos roof and sheeted walls.	None	Low	Outside scheme footprint	No
	F005	Large barn building with storage and cattle	No features	N/A	None	Negligible	Outside scheme footprint	No
	F006	Metal corrugated roof, closed, but with no likely roosting opportunities	No features	N/A	None	Negligible	Outside scheme footprint	No
	F007	Large building with corrugated asbestos roof and walls.	F007a	Large building corrugated asbestos roof and walled. Likely not to hold features though could be possible	None	Low	Outside scheme footprint	No
ST139171	F001	Residential stone built house.	F001a	Gaps under roof tiles providing 2cm access approximately 6m high	None (internal assessment undertaken)	Moderate (from external assessment)	0.116km W	Yes – building internal only
			F001b	Gaps in soffit box providing 2cm access. Approximately 6m high				
			F001c	Gaps under ridges providing 4cm access.				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
				Approximately 6m high on south side				
			F001d	Loose flashing. 2cm access approximately 7m high				
	F002	Residential stone garage.	F002a	Gaps under roof tiles/felt approximately 2m high on north side	None (internal assessment undertaken)	Moderate (from external assessment)	0.093km W	Yes – building internal only
			F002b	Cavity in wall, 2m high on east side				
	F003	Residential building with old stone-arch in driveway.	F003a	Cavity in arch approximately 5m high	None	High	0.095km W	Yes – two dawns and one dusk
WS48619	F001	Rendered two-storey houses with two chimneys.	F001a	Access point 6-8m high facing east and west	None (internal assessment undertaken)	Moderate (from external assessment)	0.023km S	Yes – one dusk and one dawn
WS75681	F001	1800s residential building. Three-storeys and stone built. Clay tiles with parts of the roof pitched. Four chimneys and four dormers.	F001a	Gaps under roof tiles and felt. Providing 4cm access 12m high on south side	Brown long eared droppings found during internal assessment	High (from external assessment)	0.046km SE	Yes – two dawns
			F001b	Cavity in wall approximately 12m high on south side. Providing 6cm of access				
			F001c	8m high on south side of three-storey house providing 3cm of access				
			F001d	Loose flashing providing 3cm access 6m high on south side				
	F002	Old stone walled shed. Clay tiled roof. Open access with no door.	F002a	Gaps under roof tiles/felt 4m high on south side. Providing 3cm of access	None (internal	High (from external assessment)	0.075km SE	Yes – two dusks and a dawn

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F002b	4cm of access 3m high.	assessment undertaken)			
	F003	Multiple stretches of 1-3m high walls approximately 100cm long within the garden.	F003a	10cm of access within stone cavities of wall, 2m high on north side	None (internal assessment undertaken)	Moderate (from external assessment)	0.070km SE	Yes – two dusks and a dawn
	F004	1800s stone out building.	F004a	3cm access in gaps under roof tiles or felt, 2m high on south side of stone outbuilding	None (internal assessment undertaken)	High (from external assessment)	0.68km km SE	Yes – two dusks and a dawn
			F004b	Many gaps in old stonework of walls 2m high on south side. 4cm of access				
			F004c	Continuous gaps under weather boarding with 3cm of access, 2m high on south side				
	F005	Stone built barn from the 1800s with clay tiles. Some entrances without doors and window gaps provide access to inside.	F005a	Gaps under roof tiles/felt of stone barn. 3cm of access, approximately 6m high on south side	Brown long eared droppings and bat found during internal assessment	High (from external assessment)	0.57km SE	Yes – two dusks and a dawns
			F005b	Cavity in wall providing 4cm of access, 4m high on south side				
			F005c	Continuous gaps under weather boarding. 3cm of access 6m high on south side				
			F005d	Gaps between roof timbers of stone bard. 6cm of access 12m high on east side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS9932	F001	Large wooden shed with a pitched roof.	F001a	Multiple gaps under asbestos sheeting on both north and south side of roof 3m high on north side	None	Low	Outside scheme footprint	No
			F001b	Multiple gaps between wooden panels of walls providing access to inside of shed approximately 2.5m high on north side				
	F002	Residential property with concrete tiled roof and wooden clad brick walls with wooden soffit.	No features	N/A	None	Negligible	Outside scheme footprint	No
WS21606	F001	Modern stone built two-storey house with concrete tiles.	F001a	Small gaps between bricks above porch tiles 4m on south side	None	Low	Outside scheme footprint	No
			F001b	Gaps under roof tiles 4m high on south side				
	F002	Modern, detached, stone walled garage.	F002a	Cavity in wall on garden side of garage. Small cracks between bricks 4m high	None	Low	Outside scheme footprint	No
WS75222	F001	Modern stone built two-storey residential property with concrete tiles.	F001a	Gaps under roof tiles 7m high on north side	None	Low	Outside scheme footprint	No
WS3181	F001	Single-storey residential property constructed in the last ten years. Pitched slate roof.	F001a	Gap under facia board 5m high on north side	None	Moderate	>40m	No
			F001b	Cavity in wall of false space 7m high on south side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F002	House built in the 16th or 17th century, recently renovated ten years ago. Slate roof, with chimney.	F002a	Gap between roof tile and roof on whole back of roof approximately 2m high on north side	None	Moderate	>40m	No
			F002b	Lead flashing gaps 3m high on north side				
			F002c	Access in eaves 3m high on west side				
			F002d	Gap under facia board3m high on east side				
			F002e	Gap in mortar 2m high on east side				
WS9081	F001	N/A	F001a	Access to soffit box 5m high on south side	None	Moderate	>40m	No
			F001b	Gap by skylight windows 5m high on south side				
			F001c	Cavity in wall 5m high on east side				
	F002	N/A	F002a	Gap between roof tile and roof 3m high	None	High	>120m	No
			F002b	Gap between roof tile and roof 3m high on south side				
			F002c	Gap in apex on south side				
			F002d	Gap under roof tile 2m high on east side				
ST105312	F001	N/A	F001a	Access to soffit box 6m high on south side	None	Moderate	>40m	No
ST125075	F001	Two-storey residential approximately 40 years old. Two distinct parts; east and west, with the	F001a	Two-storey detached house. Gaps into eaves 2.5m high on south side providing 10cm access	Brown long eared bat droppings discovered	High (from external assessment)	0.072km S	Yes – two dusks and a dawn

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		east side being a more recent build. Walls are sprayed concrete.	F001b	Gaps under facia board 2.5m high on south side providing 5cm of access	during internal assessment			
			F001c	Behind wooded facia 2.5m high on south side providing 10cm of access				
			F001d	Gaps in soffit box 5m high on south side. 5cm access				
			F001e	Facia boarding porch 10m high on south side				
			F001f	Wooden facia with access to soffit box 5m high on south side				
			F001g	Access to soffit box that provides 10cm of access. 2.5m high on the north side				
			F001h	Between roof and roof lining. 2.5m high on north side providing 5cm of access				
			F001i	Between roof and roof lining 2.5m high on east side providing 5cm of access				
			F001j	Gap in soffit box 5m high on east side providing 5cm of access				
			F001k	Access to soffit box 5m high on west side providing 5cm of access				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS25151	F001	Two-storey house converted from a barn in the last thirty years. Skylight windows and roof tiles.	F001a	Gap into eaves 6m high on east side	None - from internal assessment	High (from external assessment)	0.098km SE	Yes – two dusks and a dawn
			F001b	Missing mortar 7m high on north side				
			F001c	Missing mortar 8m high on north side				
			F001d	Access to soffit box 9m high on south side				
			F001e	Missing mortar 7m high on south side				
			F001f	Access to soffit box 6m high on south west side				
WS4493	F001	Single storey wooden shed less than twenty years old. Felt, pitched roof.	F001a	Access to soffit box 2m high on east side. Open and airy	None	Low	Outside scheme footprint	No
	F002	Single-storey brick outbuilding. Approximately 100 years old.	F002a	Well used brick outbuilding. Access to eaves 2m high on east side	None	Low	Outside scheme footprint	No
	F003	N/A	F003a	No features	None	Negligible	Outside scheme footprint	No
ST143895	F001	Two-storey mid-terraced residential house over 200 years old. Slate roof with chimney, brick walls, and lead flashing.	F001a	Gap into eaves 5m high on west side. Further survey required on east side as owners not present.	None	High	>120m	No
ST136999	F001	Stone built building with clay tiled roof.	F001a	Gap behind weather boarding 3m high on south side	None	High	>120m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F001b	Loose flashing around drain and tiles, 4m high on west side				
			F001c	Gap under roof tiles/felt 3m high on south west side				
	F002	Stone built, detached garage.	F002a	Gaps between weather boarding and wall 2m high on south side	None	High	>120m	No
			F002b	Gaps under roof tiles/felt at ridge and guttering levels				
ST126282	F001	New built, stone, residential building in good condition. Tiled roof.	F001a	Gaps under hanging tiles over gable ends of house and porch, 2m high on east side and 8m high on north side	Brown long eared bat and Serotine droppings found during internal assessment	High (from external assessment)	0.110km NW	Yes – two dusks and a dawn
ST147000	F001	Brick built residential house. Clay tiled, pitched roof.	F001a	Gaps under roof tiles on all aspects between 3 and 6m on all sides	None	High	0.020km SE	Yes – two dusks and a dawn
WS40972	F001	Large converted barn. Stone built with slate roof tiles.	F001a	Various tile gaps on all aspects 2m high	None	Moderate	>40m	No
			F001b	Gaps under eaves 6m high on all aspects				
			F001c	Wooden cladding with access 2m high on north and south sides				
WS4320	F001	Modern, brick built, clay-tiled semi-detached house with pitched roof.	F001a	Small gaps located 6m high on east side	None	Low	Outside scheme footprint	No
			F001b	Loose flashing around chimney 8m high on north and west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
ST147947	F001	Barn built with concrete blocks, wooden cladding and asbestos roof.	F001a	Gaps under asbestos sheeting and ridge tiles 3m high on east and west	None	High	>120m	No
			F001b	Gaps under ridge and roof tiles 8m high on north and south side				
WS42422	F001	Stone and brick built residential house with concrete tiles. Chimney and gable ends.	F001a	Gaps under ridge and roof tiles 8m high on north and south side	None – Access denied for internal assessment	High	0.006km N	Yes – two dusks and a dawn
			F001b	Access to soffit box on underside and gable ends. 6m high on north and south side				
			F001c	Loose flashing 8m high on south side				
WS22126	F001	Two-storey, brick built house built in the 1970s. Ridge tiles, lead flashing, and cavity walls.	F001a	Multiple and good-sized gaps under roof tiles and felt. Located 5m high on all sides	None	High	>120m	No
			F001b	Access to soffit box 4m high on east and west side				
			F001c	Loose flashing behind and around dormer windows 5m high on all sides				
WS24574	F001	Two-storey house with a small, one-storey extension. Concrete tiled and stone built, well-maintained and in good condition.	F001a	Gaps under roof tiles/felt 4m high on all sides	None – Access denied for internal assessment	High	0.038km N	Yes – two dawns and a dusk
			F001b	Loose flashing 6m high on north sides				
			F001c	Gaps in weatherboarding 3m				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
				high on north and south sides				
ST81697	F001	Concrete tiled, stone built, well-maintained, two-storey house. Lead flashing, gable ends and chimney.	F001a	Gaps in tiles hanging over gable ends. 5 to 7m high on all sides	None	Moderate	>40m	No
			F001b	Loose flashing around air vent and chimney located 3-7m high on all sides				
ST100538	F001	Stone built residential house. Clay tiled roof. Poorly maintained. Skylight windows, lead flashing, and chimney.	F001a	Steep pitch with numerous gaps under roof tiles/felt 5-7m high on all sides	None	High	>120m	No
			F001b	Loose flashing around both chimneys 7m high on north and south sides				
			F001c	Gaps under weatherboarding providing access to soffit box 2-7m high on south side				
			F001d	Access to soffit box under eaves and over porch 4m high on east side				
ST73945	F001	N/A	F001a	Gaps under tiles that are overhanging gable ends 6m high on all sides	None	High	>120m	No
	F002		F002b	Gaps under tiles that are overhanging gable ends 3m high on north-east and south-west sides				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS14454	F001	Residential bungalow with pitched, tiled roof, ridge tiles, gable ends, chimney, and lead flashing.	F001a	Gaps under ridge tiles 5m high on west and east sides	None – Access denied for internal assessment	Moderate (from external assessment)	>40m	No
			F001b	Gap in brickwork at gable end and wall cavity 4m high on north side				
ST31926	F001	Two-storey, brick built, end of terrace house. Chimney, lead flashing, and ridge tiles.	F001a	Gaps between roof timber within two-storey brick end of terrace. 6m high on all sides	Brown long eared droppings found during internal assessment	High (from external assessment)	0.096km NW	Yes – two dusks and one dawn
WS57193	F001	N/A	F001a	Gaps in hanging tiles around both chimneys 5m high on the south side	None	High	0.146km S	Yes – two dusks and a dawn
			F001b	Gaps under roof tiles/felt 5m high on south side				
			F001c	Gaps under eaves 6m high on south side				
			F001d	Loose flashing around dormer windows 8m high on south side				
			F001e	Gaps under roof tiles/felt above bay windows 3m high on west side				
			F001f	Gaps under roof tiles/felt in wall above garden gate 3m high on south side to west of main house				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F002	N/A	F002a	Gaps under roof tiles/felt 2m high on west side	None	Moderate	0.148km S	Yes – Two dusks and a dawn
	F003	N/A	F003a	Gaps under weatherboarding 3m high on south side	None	High	0.128km S	Yes – Two dawns and a dusk
			F003b	Gaps under weatherboarding 4m high on south side				
			F003c	Cavities within wooden cladding 4m high on south and west sides				
			F003d	Gap in wooden hatch to attic located on the south side approximately 3m high				
			F003e	Ridge tile gaps 4m high on west side of house				
	F004	N/A	F004a	Gaps under roof asbestos sheets located 2m high on south side	None	Low	Outside scheme footprint	No
WS21537	F001	Two-storey, mid terrace house. Well maintained and in good condition. Stone built, pitched and tiled roof, ridge tiles, and skylight windows.	F001a	Gap in wall behind guttering providing wall cavity 8m high on east side	None	Moderate	>40m	No
WS4314	F001	Small, brick out house in poor condition. Ridge tiles, and pitched roof.	F001a	Lifted tiles with gaps 3m high on east and west sides	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
ST103635	F001	Single-storey rendered garage. Built from concrete and plaster with a concrete roof.	F001a	Missing mortar below tiles providing gaps 2m high on south side	None	High	>120m	No
ST158487	F001	Large, two-storey, stone built farm house. Slate roof with ridge tiles and skylight windows. Gable ends, chimney and lead flashing also.	F001a	Gaps under lifted tiles 7m high on east side	None	High	>120m	No
			F001b	Cavity in wall behind weather boarding. 6m high on east side				
			F001c	Corner by gutter providing access 6m high on south-east side				
	F002	Wooden clad, single-storey out building. Hanging tiles and boarding. Pitched roof with ridge tiles.	F002a	Gaps under roof tiles/felt 3m high on south side	None	High	>120m	No
			F002b	Gaps under eaves 3m high on side				
ST109138	F001	Stone built end of terrace, two-storey house. Concrete roof tiles. Gable ends and lead flashing.	F001a	Gaps under roof tiles/felt 5m high on east and west sides	None	High	>120m	No
			F001b	Gap under weatherboarding 4m high on south side				
			F001c	Loose flashing around chimney located on the north side 6m high				
	F002	N/A	F002a	Gaps under tiles	None	Low	Outside scheme footprint	No
	F003	N/A	F003a	Small gaps within wooden cladding on shed	None	Low	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
ST164764	F001	Large, stone built house. Pitched roof with ridge tiles. Gable ends, chimney and lead flashing.	F001a	Gaps under roof tiles/felt up to 8m high on all sides of property	None	High	>120m	No
			F001b	Cavity in wall behind guttering and tiles 6m high on east sides				
			F001c	Good size hole providing access into wooden soffit box located 2m high on north side				
	F002	Clay-tiled, single-storey garage. Pitched roof, gable end, and ridge tiles.	F002a	Gaps along ridge tiles that are sheltered by bushed on north side. Gap access located 4m high on south side	None	High	>120m	No
ST70292	F001	Two-storey multiple dwelling with house numbers one and two. Stone built, pitched roof, ridge tiles, gable ends and chimney.	F001a	Gaps under roof tiles/felt located 9m high on east side	None	Moderate	>40m	No
			F001b	Gaps under roof tiles/felt located 10m high on east side				
			F001c	Loose flashing 12m high on east side				
			F001d	Gaps in eaves 9m high on east side				
	F002	Two-storey multiple dwelling with house numbers four, five, and six. Stone built, pitched roof, ridge tiles, gable ends and chimney.	F002a	Gaps under roof tiles/felt located 9m high on east side	None	Moderate	>40m	No
			F002b	Gaps under roof tiles/felt located 10m high on east side				
			F002c	Loose flashing 12m high on east side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F002d	Gaps in eaves 9m high on east side				
ST84283	F001	Two-storey, stone built and clay-tiled house. Gable ends, soffit box, lead flashing and chimney.	F001a	Stone built clay tiled two-storey house. Gaps under roof tiles located 4m high on east side	Serotine, Brown long eared bat and Pipistrellus sp. droppings found during internal assessment	High (from external assessment)	0.010km NW	Yes – two dusks and one dawns
			F001b	Access to soffit box 6m high on south side				
	F002	Two-storey, stone built and clay-tiled house. Gable ends, and lead flashing.	F002a	Residential garage. Gaps under roof tiles/felt located on the east side	None	High	0.005km N	Yes – two dusks and one dawn
ST152765	F001	Stone built house. Concrete tiled, pitched roof, modern and well maintained. Approximately 15 years old.	F001a	Gaps under roof tiles/felt 8m high	None	High	>120m	No
			F001b	Large gaps between chimney, lead flashing and tiles, as well as along ridge and at gable end. Approximately 8m high				
			F001c	Gaps under gable ends and roof tiles located on the east side				
	F002	Single-storey, stone built garage. Approximately 15 years old. Concrete tiles, ridge tiles. Well-maintained and in good condition.	F002a	Gaps under ridge tiles on four-sided roof approximately 3m high	None	Moderate	>40m	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F003	Approximately 15 years old. Two-storey, stone built house. Chimney, pitched roof, ridge tiles, and lead flashing.	F003a	Gaps under roof tiles/felt, loose lead flashing and chimney. 8m high around property	None	High	>120m	No
			F003b	Gaps under ridge tiles 8m high				
			F003c	Gaps under gable ends and roof tiles located on north east side				
	F004	Terrace end. Stone built, well maintained house with concrete tiles, skylight windows, and chimney.	F004a	Gaps around chimney, lead flashing, and tiles. 8m high on all sides	None	High	>120m	No
			F004b	Gaps under ridge tiles 8m high on all sides				
			F004c	Gaps under tiles in eaves above drainpipe				
			F004d	Gaps under gable ends and roof tiles between 7-8m high on all sides				
			F004e	Gaps around soffit box and lead flashing between 4 and 5m high				
U00026	F001	Brick, two-storey house split into two dwellings, approximately 50 years old. Gable ends, soffit box, chimney, and lead flashing.	F001a	Gaps under roof tiles/felt gable ends. Approximately 8m high on south side	None (access denied for internal assessment)	Moderate (from external assessment)	0.110km NW	Yes – one dusk and one dawn
			F001b	Gaps under roof tiles/felt approximately 4m high on the west side				
WS6493	F001	Felt roofed, metal building.	No features	N/A	None	Negligible	Outside scheme footprint	No

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
WS42423	F001	Stone-built, single-storey bakery. Tiled roof, corrugated metal in areas, and ridge tiles.	F001a	Gaps under roof tiles/felt between 2 and 3m high on north side	None – Access denied for internal assessment	High	0.018km S	Yes – two dusks and two dawns
			F001b	Access to soffit box located on the north side of the building 5m high				
	F002	Poorly maintained, pitched clay tile roof. Approximately 100 years old. Stone built.	F002a	Cavity in wall located between 2 and 3m high on north side	None – Access denied for internal assessment	High	0.006km S	Yes – two dusks and one dawn
			F002b	Loose flashing around roof located 5m high on north side				
			F002c	Loose flashing and gap between roof tile and roof 4m high on north side				
			F002d	Cavity in wall 4m high on north side				
			F002e	Loose flashing 2m high on south side				
WS48619	F001	Rendered two-storey house with two chimneys. Slate-tiled roof. Gable ends and lead flashing.	F001a	Gaps under wooden boarding between 6 and 8m high on east and west sides	None	Moderate	0.029km N	Yes – one dawn and one dusk
ST106774	F001	Small wooden barn used for storage in reasonable condition. Brick and wooden walls. Corrugated asbestos roof.	F001a	Wall cavity 30m high on south side	None – Access denied for internal assessment	High	>120m	No
			F001b	Gap at apex of barn, vent point. 7m high on south side				
			F001c	Gap under wooden boarding 10m high on west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F001d	Wall cavity located 5m high on west side				
			F001e	Wall cavity 15m high on east side				
			F001f	Woodpecker hole just below edge of roof located 6m high on east side				
			F001g	Gaps under edges of corrugated roof sheeting, 4m high along both sides of building, that lead to gaps between wooden panelling				
	F002	Bungalow in good condition. Gable ends, chimney, lead flashing, and ridge tiles.	F002a	Gaps under roof tiles/felt.	None – Access denied for internal assessment	High (from external assessment)	>120m	No
			F002b	Loose lead flashing at edge of bungalow roof 10m high on west side				
			F002c	Vent block 15m high on west side				
			F002d	Vent block 15m high on north side				
			F002e	Loose lead flashing at edge of roof on east side 15m high				
ST137650	F001	House refurbished in the last ten years. Brick walls, pitched roof with ridge tiles. Gable ends, lead flashing and chimney.	F001a	Cavity in wall 4m high on west side	None	Moderate	>40m	No
			F001b	Cavity in wall 4.5m high on west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
	F002	Small garage, approximately 20 years old. Stone walls with hanging tiles and boarding. Pitched roof with ridge tiles. Gable ends also.	F002a	Gaps under roof tiles/felt 3m high on north side	None	High	>120m	
			F002b	Cavity in wall low down, approximately 0.5m on west side				
			F002c	Gap at apex 3.5m high on west side				
ST49192	F001	Two-storey house that makes up part of a terrace. In good condition. Brick walls with pitched roof and ridge tiles.	F001a	Old over flow pipe that leads into wall cavity 3.5m high on west side		Low	Outside scheme footprint	No
			F001b	Gaps under tiles 2.5m high at southern edge				
ST84283	F001	N/A	F001a	Gaps under roof tiles/felt on the east side	None	High	>120m	No
			F001b	Access to soffit box on the south side				
ST89677	F001	Two-storey brick built end of terrace house. Hipped roofs, skylight windows, chimney and lead flashing.	F001a	Wall cavity 6m high on west side	None	Negligible	Outside scheme footprint	No
			F001b	Wall cavity 6m high on east side				
	F002	Brick-built garage. Ridge tiles and gable ends.	F002a	Gaps under roof tiles/felt between 2 and 3m on the north side	None	Low	Outside scheme footprint	No
			F002b	Gaps under roof tiles/felt between 2 and 3m on the south side				
ST117571	F001	Mid terrace stone built, concrete tiled two-storey house.	F001a	Cavity in wall 5m high on north west side	None	Low	Outside scheme footprint	No
ST147000	F001	Residential building, brick built, clay tiled with a patched roof.	F001a	Gaps under roof tiles between 3 and 6m high	Dead lesser horseshoe bat	High (from external assessment)	0.020km NW	Yes – two dusks and two dawns

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
					discovered during internal assessment			
WS20740	F001	Stone bungalow with concrete tiles and wooden soffit.	F001a	Hanging tiles 2 to 3m high on north west side	None	High	>120m	No
			F001b	Hanging tiles 2 to 3 m on south west side				
			F001c	Hanging tiles 2 to 5 m on the south-east side				
			F001d	Hanging tiles 2 to 5 m high on north-east side				
			F001e	Gaps under roof tiles/felt near skylight 5m high on south east side				
	F002	Stone garage. Pitched, stone tiled roof and gable ends.	F002a	Hanging tiles 2 to 5 m high on north-west side	None	High	>120m	No
			F002b	Hanging tiles 2 to 3 m on south-east side				
ST97213	F001	Two- storey detached house with stone walls and clay tiles. Attached to a one-storey garage annex and conservatory. Generally, in very good condition. Approximately 10 years old.	F001a	Missing mortar potentially leading to wall cavity located 1.5m high on south side	Confirmed brown long-eared bat roost from internal assessment	Moderate (from external assessment)	0.023km N	Yes – one dawn and one dusk
WS10687	F001	Two storey public house and hotel. Multiple annexes and aspects which differ in age.	F001a	Missing brick under roof where cable goes on south-east side 3m high	Worker states there are usually bats flying around	High (from external assessment)	>120m	No
			F001b	Missing brickwork on corner of gable end				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		Clay tiled roof, re-done with slate on some aspects. Wooden facia on some of the gable ends. Breeze block annex at rear, single skinned. There is a cellar but it is on the ground floor. The oldest part is from the 15th century.		potentially leading to roof 6m high on south-east side	inside the pub in the morning when they open.			
			F001c	Gaps under porch tiles on south-west side				
			F001d	Gaps under facia boarding on south-west side 3m high				
			F001e	Hole in wall potentially leading to a wall cavity on south-west side 8m high				
			F001f	Access to soffit box at apex of gable end. Located 8m high on south-west side				
			F001g	Air brick, fan behind but off. 8m high on south-west side				
			F001h	Grill in roof 7.5m high on north-west side				
	F002	Stone barn with a hay loft. Roof is newly rebuilt but the rest of the barn is approximately 400 years old, like F001. Pitched roof with ridge tiles.	F002a	Crack in wall 2 to 3m high on south-west side	None	High	>120m	No
			F002b	Hay loft door. Access 3m high on south-west side				
			F002c	Multiple gaps into eaves located along the south-west side 7m high				
			F002d	Missing mortar and brick, potentially leading to wall cavity 2.5m high on south-west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
			F002e	Various gaps under ridge tile on south-east side 4m high				
			F002f	Gaps in eaves under weatherboard 3m high on north-east side				
	F003	Single-storey building used as hotel of pub. Stone walls with concrete facia at back. False ceiling. Unknown if roof space is available to check for bats.	F003a	Gaps into eaves 3m high on north-west side	None	High	>120m	No
			F003b	Gaps into eaves 3m high on north-east side				
			F003c	Gaps into eaves 3m high on south-east side				
WS16326	F001	Residential bungalow. Walls comprised of brick and breeze block. Plastic soffit box. Approximately 30-40 years old.	F001a	Access to soffit box 2.5m high on south-west side	None	Moderate	0.017km SE	Yes – one dawn and one dusk
			F001b	Gaps under roof tiles/felt located 4m high on north-east side				
WS18587	F001	Stone and brick built two-storey house. Gable ends, chimney, soffit box.	F001a	Access to soffit box 10m high on north-west side	None	Low	Outside scheme footprint	No
WS56543	F001	Dis-used Methodist church. Stone walls mostly but some are breeze blocks. Clay roof tiles. Approximately 100 years old. Full access	F001a	Under wooden facia board 5m high on south-west side	None	High	0.003km S	Yes
			F001b	Access to soffit box 3m high on north-west side				
			F001c	Gap in wooden board at top of air gap 5m high on north-west side				

Land parcel reference no.	Structure identification	Building description	Building feature number	Description	Evidence of bats	Level of potential (building potential)	Distance from scheme	Emergence/re-entry surveys
		to the south side not possible.	F001d	Under wooden facia board 4.5m high on north-west side				
			F001e	Under wooden facia board 3m high on north-east side				
			F001f	Under wooden facia board 3m high on north-east side				
			F001g	Missing mortar under ridge tile at apex of gable end 6m high on north-east side				
			F001h	Under wooden facia board 2.5m high on south-east side				
ST148601	F001	N/A	F001a	Possible gap under ridge	None	Low	Outside scheme footprint	No
U00025	F001	Brick two-storey house split into two dwellings. Pitched roof with ridge tiles. Gable ends, loose flashing, and chimney.	F001a	Gaps under roof riles/felt 12m high on north side	None	Moderate	>40m	No
			F001b	Gaps under roof riles/felt 4m high on south side				

Table F.4: Summary of building bat roost potential following the preliminary BRP assessment

Land parcel reference no.	Feature number	Building number	Building potential	No. of emergence re-entry surveys recommended
WS64408	F001	B8	Confirmed	3
WS33009	F001	N/A	Moderate	2
WS24574	F001	N/A	Moderate	2
U00016	F001	B29	Moderate	2
WS42423	F002	B15	High - possible roost	3
	F001	B16	High	3
WS42422	F001	B14	High	3
WS48619	F001	B33	Moderate	2
ST128002	F002	B26	Moderate	3
ST125075	F001	B4	Confirmed	3
WS57193	F001	B17	Confirmed	3
	F002	N/A	Moderate	2
	F003	B18	High	3
WS25151	F001	B13	Confirmed	3
WS75681	F001	B9	Confirmed	3
	F002	N/A	Confirmed	3
	F003	N/A	High	3
	F004	N/A	High	3
	F005	B10	Confirmed	3
ST84283	F001	B2	Confirmed	3
	F002	N/A	Confirmed	3
ST31926	F001	B1	Confirmed	3
ST139171	F001	N/A	Moderate	0
	F002	N/A	Moderate	0
	F003	B12	Confirmed	3
ST126282	F001	B5	Confirmed	3
ST103525	F002	B24	Moderate	2
	F006	B25	Confirmed	3
	F007	N/A	Confirmed	3
U00026	F001	B30	Moderate	3
ST147000	F001	B6	Confirmed	3
ST97213	F001	B22	Moderate	2
WS16326	F001	B31	Moderate	2
WS56543	F001	B7	High	3
ST100525	F001	B23	Moderate	2

F.2 Bat emergence and re-entry surveys results

Trees

Table F.5: Summarising the survey conditions for tree roost surveys

Land parcel reference no.	Feature number	Survey type	Sunrise/ Sunset time	Survey Date	Start Time	End Time	Temp (°C)	Wind (Bft)	Cloud cover (Octas)	Conditions
ST153085	F001	Dawn	05:17	18/07/17	03:17	05:33	16 rising to 18	0	3	Warm, still
		Dusk	20:15	23/08/17	19:45	22:15	18	0	3	Dry
		Dawn	07:37	17/10/17	05:36	07:52	11 dropping to 10	2	0	Dry
	F004	Dusk	21:16	01/06/17	21:00	23:16	18	3	3	Warm and clear
		Dawn	06:41	12/09/17	04:41	06:56	11	1	8	Drizzle at 05:00
	F005	Dawn	06:41	12/09/17	04:41	06:56	11	1	7	Dry, still. Rain before survey
		Dusk	19:17	18/09/17	18:47	21:17	12	1	8	On off heavy rain obscuring feature
		Dawn	06:53	20/09/17	04:53	07:08	11	0	7	Clear morning
		Dusk	07:14	03/10/17	05:14	07:30	8	2	1	Dry, clear
		Dusk	18:16	16/10/17	17:39	20:16	16	7	2	Dry, gusty
	F010	Dusk	21:16	01/06/17	21:00	23:16	14	1	4	Dry, calm
		Dusk	19:17	18/09/17	18:47	21:17	14	1	7	Cloudy, drizzle at beginning
		Dawn	06:53	20/09/17	04:53	07:08	12	0	6	Dry, cool
		Dawn	07:14	03/10/17	05:14	07:30	8	2	1	Dry, clear
	F011	Dusk	19:15	18/09/17	18:45	21:15	18 to 13	1	7	Light drizzle, brief
		Dawn	06:53	20/09/17	04:53	07:08	11 to 10	1	0	Clear, cool
		Dusk	18:11	18/10/17	17:41	20:11	14	1	8	Overcast, drizzle
	F027	Dusk	19:34	11/09/17	19:02	21:24	16 to 13	4 to 1	7	Windy, drizzle
		Dawn	06:42	13/09/17	04:42	06:57	13 to 12	8	8	Windy, light drizzle
	F032	Dusk	19:33	11/09/17	19:03	21:33	12	4	8	Cool, wind, rain
		Dawn	06:42	13/09/17	04:42	06:57	14	4	7	Windy
		Dusk	19:26	14/09/17	18:56	21:16	12	4	0	Cool, windy
	F038	Dusk	21:16	17/07/17	20:46	23:16	21	1	4	Dry
		Dawn	06:10	23/08/17	04:10	06:25	17	1	8	Drizzle
	F039	Dusk	21:17	17/07/17	20:50	23:20	20 to 19	0	7	Warm, dry
		Dawn	06:11	24/08/17	04:11	06:26	13	1	4	Dry
ST128002	F001	Dawn	05:11	13/07/17	03:16	05:26	15	1	7	Dry, warm

Land parcel reference no.	Feature number	Survey type	Sunrise/ Sunset time	Survey Date	Start Time	End Time	Temp (°C)	Wind (Bft)	Cloud cover (Octas)	Conditions
		Dusk	20:17	22/08/17	19:47	22:17	20	3	0	Light wind
		Dusk	18:47	02/10/17	18:17	20:47	13	2	8	Moderate rain to light drizzle for first hour
	F002	Dawn	05:20	19/07/17	03:20	05:31	23	2	8	Thunder
		Dusk	20:17	22/08/17	19:47	22:17	19	1	5	Dry, clear
	F003	Dusk	20:17	22/08/17	19:47	22:17	19	1	5	
		Dawn	07:12	05/10/17	05:15	07:31	14	7	8	Drizzle, windy
		Dawn	07:25	11/10/17	05:26	07:41	18	0	5	Wet
		Dusk	18:13	17/10/17	17:48	20:13	14	0	8	Calm, cool, light rain
		Dawn	07:52	25/10/17	05:50	08:07	14	1	5	Some drizzle
	F004	Dusk	21:13	30/05/17	21:21	23:13	16	3	8	Dry, cloudy
		Dawn	05:11	13/07/17	03:17	05:26	13	1	2	Dry
		Dusk	20:17	22/08/17	19:47	22:17	19	2	2	Humid, breeze
		Dawn	07:07	28/09/17	05:00	07:22	13	2	7	Dry
	F007	Dusk	21:16	31/05/17	21:00	23:15	18	2	2	Dry
		Dusk	20:17	22/08/17	19:47	22:17	18	2	2	Warm, thunder at end
		Dawn	07:17	05/10/17	05:17	07:32	14	3	8	Wind and rain at end
		Dawn	07:40	19/10/17	05:40	07:55	13	1	8	Dry, cool
	F009	Dusk	21:15	31/05/17	21:00	23:15	15	0	4	Dry, calm
		Dawn	06:10	23/08/17	04:10	06:25	16	0	6	Warm, calm, drizzle for first hour
		Dusk	18:11	18/10/17	17:41	20:11	18	0	8	Damp, humid
	F013	Dawn	21:20	13/07/17	20:50	23:20	18	8	0	Warm and dry
		Dusk	18:11	18/10/17	17:41	20:11	16	1	8	Drizzle
WS75059	F003	Dawn	05:08	26/05/17	03:17	05:08	16	2	0	Clear
		Dusk	20:56	01/08/17	20:26	22:58	18	0	8	Calm, dry
	F008	Dusk	21:08	25/05/17	20:54	23:08	19	1	0	Clear, dry, warm
		Dawn	05:11	13/07/17	03:09	05:26	16	0	7	Dry, still
		Dusk	20:56	01/08/17	20:26	22:56	16	1	7	Cloudy, cool
	F010	Dawn	04:57	07/06/17	02:57	05:12	11	1	6	Drizzle
		Dawn	05:11	13/07/17	03:05	05:26	17	0	8	Calm, dry
		Dusk	20:56	01/08/17	20:26	22:56	13	2	4	Dry, cool
WS31054	F001	Dusk	21:27	26/06/17	20:28	23:27	18	0	7	Dry, calm
		Dusk	20:53	03/08/17	20:23	22:53	15	2	7	Dry, cool

Land parcel reference no.	Feature number	Survey type	Sunrise/ Sunset time	Survey Date	Start Time	End Time	Temp (°C)	Wind (Bft)	Cloud cover (Octas)	Conditions
		Dawn	07:37	17/10/17	05:37	07:52	11	0	1	Clear, dry
ST97976	F004	Dawn	05:03	05/07/17	03:02	05:18	14	0	0	Dry, cool
		Dusk	20:53	03/08/17	20:23	22:53	16	5	6	Dry
		Dusk	18:01	23/10/17	17:31	20:01	18 to 14	2	8	Dry, warm
WS16934	F001	Dusk	21:26	05/07/17	20:56	23:27	25	1	4	Dry, warm
		Dawn	05:36	01/08/17	03:32	05:51	16	1	8	Dry, calm
	F002	Dusk	21:27	05/07/17	20:57	23:27	22	0	1	Dry, warm
		Dusk	21:04	31/07/17	20:34	23:04	18	1	8	Dry, warm
		Dawn	06:20	30/08/17	04:25	06:35	15	0	4	Dry
	F003	Dusk	21:28	05/07/17	21:00	23:28	24	0	1	Dry
		Dawn	06:20	30/08/17	04:20	06:35	12	1	7	Dry
		Dusk	18:01	23/10/17	17:45	20:01	15	2	8	Dry, cool
WS75681	F001	Dusk	21:27	06/07/17	20:56	23:26	21	0	0	Dry, calm, warm
		Dawn	06:08	22/08/17	04:08	06:23	19	1	5	Dry, clear
		Dusk	18:11	18/10/17	17:41	20:11	16	0	8	Foggy
	F002	Dusk	21:26	06/07/17	20:55	23:26	19	0	1	Dry, warm
		Dusk	20:20	21/08/17	19:50	22:20	21	1	4	Dry, clear
		Dawn	06:42	13/09/17	04:42	06:57	12	4	6	Drizzle, wind
	F005	Dusk	21:22	12/07/17	20:52	23:22	19	1	2	Dry, calm
		Dusk	20:19	21/08/17	19:49	22:19	21	1	8	Dry
		Dawn	06:44	13/09/17	04:44	06:59	16	3	7	Dry
	F006	Dusk	21:21	12/07/17	20:51	23:21	20	0	5	Dry, calm
		Dusk	20:19	21/08/17	19:49	22:19	18	0	7	Dry, warm
		Dawn	06:44	13/09/17	04:42	06:57	16	3	7	Dry
	F007	Dawn	05:04	06/07/17	03:13	05:24	17	1	5	Dry
		Dusk	20:19	21/08/17	19:49	22:19	20	1	7	Dry, warm
		Dusk	19:31	12/09/17	19:01	21:30	11	2	0	Drizzle
		Dawn	07:40	19/10/17	05:38	07:55	12	0	7	Fog, drizzle
	F008	Dawn	05:04	06/07/17						
		Dusk	20:18	21/08/17	19:48	22:18	22	0	3	Dry, warm
		Dusk	19:31	12/09/17	19:01	21:31	13	4	8	Windy
		Dawn	07:40	19/10/17	05:40	07:55	11	0	8	Misty, damp
	F009	Dusk	20:19	21/08/17	19:49	22:19	22	0	8	Dry, calm

Land parcel reference no.	Feature number	Survey type	Sunrise/ Sunset time	Survey Date	Start Time	End Time	Temp (°C)	Wind (Bft)	Cloud cover (Octas)	Conditions
		Dusk	19:31	12/09/17	19:01	21:31	12	8	8	Stormy, rain
		Dawn	06:44	14/09/17	04:44	06:59	9	2	2	Dry, cold. Rain prior to survey
		Dawn	07:38	18/10/17	05:38	07:53	12	1	8	Drizzle throughout
	F011	Dusk	21:26	06/07/17	20:56	23:26	21	0	0	Dry, calm, warm
		Dawn	06:08	22/08/17	04:08	06:23	20	1	0	Dry, calm
		Dusk	17:59	24/10/17	17:29	19:59	17	3	7	Dry, warm
U00029-43	F017	Dusk	21:15	18/07/17	20:45	23:15	22	0	2	Dry, warm
		Dusk	21:08	25/07/17	20:38	23:08	18	0	3	Dry, warm
		Dawn	05:27	26/07/17	03:27	05:42	16	0	2	Dry, calm
		Dawn	05:48	09/08/17	03:48	05:48	14	1	0	Dry. Rain at end
	F018	Dusk	21:28	04/07/17	20:59	23:28	20	1	7	Dry
		Dusk	21:08	25/07/17	20:38	23:08	22	1	4	Dry, warm
		Dawn	05:27	26/07/17	03:27	05:42	17	1	7	Dry
		Dawn	05:49	10/08/17	03:49	06:04	14	0	0	Dry, cool
	F019	Dawn	05:03	05/07/17	03:03	05:18	17	1	5	Dry, cloudy
		Dusk	21:06	26/07/17	20:36	23:06	19	3	7	Dry, windy
		Dawn	05:26	27/07/17	03:26	05:41	15	2	8	Dry
		Dusk	20:46	08/08/17	20:16	22:46	17	1	4	Damp, drizzle during day
WS26353	F002	Dusk	21:23	10/07/17	21:00	23:23	17	1	6	Dry, calm
		Dawn	06:10	23/08/17	04:10	06:25	18	0	0	Light rain
		Dusk	18:56	27/09/17	18:26	20:50	15	4	8	Light rain, wind
	F003	Dusk	21:23	10/07/17	20:53	23:23	17	0	4	Dry, calm
		Dusk	20:15	23/08/17	19:45	22:15	20	1	0	Dry, calm
		Dawn	07:14	05/10/17	05:14	07:29	9	1	2	Dry, clear
		Dawn	07:40	19/10/17	05:40	07:55	12	0	7	Light rain, foggy
	F004	Dusk	21:23	10/07/17	20:53	23:23	19	0	8	Dry, cool
		Dusk	20:15	23/08/17	19:45	22:15	18	1	2	Dry, calm
		Dawn	07:14	05/10/17	05:14	07:29	9	1	2	Dry, clear
		Dawn	07:40	19/10/17	05:40	07:55	13	0	8	Light rain, damp
	F007	Dawn	05:09	11/07/17	03:09	05:24	14	1	4	Dry, calm
		Dusk	20:46	08/08/17	20:15	22:45	17	1	4	Dry, cloudy
		Dusk	17:59	24/10/17	17:30	20:00	15	6	5	Dry, wind

Land parcel reference no.	Feature number	Survey type	Sunrise/ Sunset time	Survey Date	Start Time	End Time	Temp (°C)	Wind (Bft)	Cloud cover (Octas)	Conditions
WS46264	F001	Dusk	21:23	10/07/17	20:53	23:23	16	1	6	Dry, warm
		Dawn	05:39	03/08/17	03:39	05:54	17	3	8	Dry, wind
		Dusk	17:59	24/10/17	17:29	19:59	16	4	8	Dry
ST106737	F002	Dawn	06:11	24/08/17	04:11	06:25	19	1	5	Dry, clear
		Dusk	20:04	29/08/17	19:34	22:04	19	2	2	Dry
WS1856	F003	Dawn	05:18	19/07/17	03:18	05:33	19 to 21	1	8	Dry, rain before survey
		Dusk	20:00	30/08/17	19:30	22:00	11	1	4	Dry, cold
U00010	F001	Dawn	05:12	18/07/17	03:17	05:32	17	1	8	Dry
		Dusk	19:59	30/08/17	19:29	21:59	16 to 9	1	2	Dry
		Dusk	18:11	18/10/17	17:41	20:11	15	1	8	Mist, calm, warm
ST103525	F001	Dawn	05:08	11/07/17	03:03	05:23	17	0	8	Dry, calm
		Dusk	20:02	29/08/17	19:32	22:02	17	0	7	Dry, cloudy
		Dusk	18:12	18/10/17	17:31	20:12	14	0	8	Mist, calm
U00024	F005	Dusk	19:01	25/09/17	18:31	21:01	17 to 15	1	8	Dry, warm
		Dusk	18:01	23/10/17	17:30	20:01	18	0	7	Dry, calm
		Dawn	07:50	25/10/17	06:04	08:05	14	2	8	Rain, short
WS57193	F001	Dawn	07:17	05/10/17	05:17	07:32	14	5	8	Wet, windy
		Dusk	18:15	16/10/17	17:45	20:15	15	10	2	Windy
		Dawn	07:48	24/10/17	05:48	08:03	18	3	4	Dry
		Dusk	17:57	25/10/17	17:27	19:57	16	1	8	Dry

Table F.6: Tree emergence or return summary table showing species identified and those emerging or re-entering close to the location

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
ST153085	F001	T9	High	Common pipistrelle Soprano pipistrelle Noctule Myotis species	N/A	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Serotine			
	F004	N/A	Moderate	Common pipistrelle Soprano pipistrelle Myotis species Noctule Serotine	Myotis species	No	N/A
	F005	T10	Confirmed	Common pipistrelle Noctule Leisler's Brown long-eared Myotis species Serotine Soprano pipistrelle	Noctule Common pipistrelle Leisler's Brown long-eared	Yes – common pipistrelle emergence from nearby trees, east of the feature tree on 16/10/17	Common pipistrelle
	F010	T11	High	Soprano pipistrelle Common pipistrelle Serotine Myotis species Noctule Leisler's Brown long-eared	Soprano pipistrelle Noctule Common pipistrelle Brown long-eared	No	N/A
	F011	T12	Confirmed	Noctule Common pipistrelle Barbastelle Soprano pipistrelle Myotis Leisler's Noctule	Noctule Common pipistrelle Barbastelle Myotis Brown long-eared	Yes – common pipistrelle emerging from middle of trees on 18/09/17. Re-entry straight into tree on 20/09/17.	Common pipistrelle

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
	F027	N/A	Moderate	Soprano pipistrelle Common pipistrelle Myotis species Noctule	Soprano pipistrelle Common pipistrelle Myotis species	No	N/A
	F032	T13	Confirmed	Soprano pipistrelle Noctule Brown long-eared Serotine Common pipistrelle Myotis Leisler's	Soprano pipistrelle	Yes – soprano pipistrelle emergence from dead branch. Noctule emergence from main trunk and flying towards the south west. Brown long-eared from trunk cavity on west side. All on 11/09/17. Yes – Serotine return to roost into woodpecker hole 5m high on east side	Soprano pipistrelle Noctule Brown long-eared Serotine
	F038	N/A	Moderate	Noctule Soprano pipistrelle Common pipistrelle Leisler's Myotis species Serotine Brown long-eared	Noctule Soprano pipistrelle Common pipistrelle Myotis	No	N/A
	F039	N/A	Moderate	Noctule Soprano pipistrelle Common pipistrelle	Noctule Soprano pipistrelle Common pipistrelle Myotis species	Yes – common pipistrelle flying into F039 on 17/07/17.	Common pipistrelle

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Myotis species Serotine Nyctalus species Brown long-eared			
ST128002	F001	T4	High	Noctule Soprano pipistrelle Common pipistrelle Myotis Serotine Brown long-eared	Noctule Soprano pipistrelle Common pipistrelle Myotis	No	N/A
	F002	N/A	Moderate	Common pipistrelle Soprano pipistrelle Myotis Serotine Noctule Leisler's	Noctule Myotis Leisler's	No	N/A
	F003	T5	Confirmed	Noctule Soprano pipistrelle Brown long-eared Serotine Common pipistrelle Myotis	Noctule Soprano pipistrelle Brown long-eared Myotis	Yes – myotis emergence from F004b – the north growing branch 6m high on 30/05/17	Myotis species
	F004	T6	Confirmed	Noctule Brown long-eared Soprano pipistrelle Common pipistrelle Serotine	Noctule Brown long-eared	Yes – BLE seen emerging from F004 on 22/08/17. Yes – soprano pipistrelle return to roost after	Brown long-eared Soprano pipistrelle

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Leisler's Myotis		continuously circling tree on 13/07/17.	
	F007	T7	High	Noctule Myotis species Common pipistrelle Serotine Soprano pipistrelle Common pipistrelle	Noctule Myotis species	No	N/A
	F009	T8	High	Common pipistrelle Soprano pipistrelle Noctule Brown long-eared Serotine Leisler's Lesser horseshoe	Common pipistrelle Soprano pipistrelle Noctule	No	N/A
	F013	N/A	Moderate	Common pipistrelle Soprano pipistrelle Myotis Leisler's Noctule	Common pipistrelle Soprano pipistrelle Myotis	No	N/A
WS75059	F003	N/A	Moderate	Common pipistrelle Soprano pipistrelle Noctule Myotis Serotine Leisler's	N/A	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
	F008	T26	Confirmed	Soprano pipistrelle Common pipistrelle Myotis species Noctule Serotine	Soprano pipistrelle Common pipistrelle Myotis species	Yes – common pipistrelle emerging from tree west of F008 on 25/05/17. Yes – up to 38 myotis bats seen entering top of trunk cavity on 13/07/17.	Common pipistrelle Myotis
	F010	N/A	Moderate	Soprano pipistrelle Myotis Common pipistrelle Noctule Serotine	Soprano pipistrelle	No	N/A
WS31054	F001	T24	High	Noctule Brown long-eared Myotis species Common pipistrelle Serotine	Noctule Brown long-eared Myotis species	No	N/A
ST97976	F004	T2	High	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis Noctule Serotine Long-eared species	Pipistrellus sp. Common pipistrelle	No	N/A
WS16934	F001	N/A	Moderate	Common pipistrelle Noctule	N/A	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Serotine			
	F002	T18	High	Serotine Soprano pipistrelle Common pipistrelle	N/A	No	N/A
	F003	T19	High	Noctule Common pipistrelle Leisler's	N/A	No	N/A
WS75681	F001	T27	High	Common pipistrelle Leisler's Soprano pipistrelle	Common pipistrelle	No	N/A
	F002	T28	High	Common pipistrelle Soprano pipistrelle Noctule Myotis Leisler's Noctule Serotine	Common pipistrelle Soprano pipistrelle Noctule Myotis	No	N/A
	F005	T29	High	Common pipistrelle Pipistrellus sp. Serotine Soprano pipistrelle Myotis Noctule Leisler's	Common pipistrelle Pipistrellus sp. Serotine Soprano pipistrelle	No	N/A
	F006	T30	High	Common pipistrelle	Common pipistrelle Pipistrellus sp.	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Pipistrellus sp. Soprano pipistrelle Myotis species Serotine Lesser horseshoe Brown long-eared Leisler's	Soprano pipistrelle Myotis species Serotine		
	F007	T31	High	Soprano pipistrelle Common pipistrelle Serotine Myotis Serotine Leisler's Noctule Lesser horseshoe	Soprano pipistrelle Common pipistrelle Serotine Myotis	No	N/A
	F008	T32	High	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Myotis species Brown long-eared Leisler's Lesser horseshoe Serotine	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Myotis species Brown long-eared	No	N/A
	F009	T33	High	Soprano pipistrelle Common pipistrelle Noctule Myotis species Noctule	Soprano pipistrelle Common pipistrelle Noctule Myotis species	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Leisler's			
	F011	T34	High	Common pipistrelle Myotis species Soprano pipistrelle Serotine Nyctalus species	Common pipistrelle Myotis species	No	N/A
U00029-43	F017	T16	High	Soprano pipistrelle Common pipistrelle Myotis species Brown long-eared Noctule Pipistrellus sp.	Soprano pipistrelle Common pipistrelle Myotis species Brown long-eared Noctule Pipistrellus sp.	No	N/A
	F018	N/A	Confirmed	Soprano pipistrelle Myotis species Common pipistrelle Leisler's Serotine	Soprano pipistrelle Myotis species Common pipistrelle	No	N/A
	F019	T17	High	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Brown long-eared Lesser horseshoe Myotis species Serotine Noctule	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Brown long-eared Lesser horseshoe Myotis species	No	N/A
WS26353	F002	T20	Confirmed	Common pipistrelle	Common pipistrelle Soprano pipistrelle	Yes – common pipistrelle emerging	Common pipistrelle

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Soprano pipistrelle Myotis species Noctule Leisler's	Myotis species	from F002 flying north on 10/07/17.	
	F003	T21	High	Common pipistrelle Myotis species Soprano pipistrelle Serotine Leisler's Noctule	Common pipistrelle Myotis species Soprano pipistrelle	No	N/A
	F004	T22	High	Pipistrellus sp. Common pipistrelle Myotis species Soprano pipistrelle Leisler's Brown long-eared Serotine Noctule	Pipistrellus sp. Common pipistrelle Myotis species Soprano pipistrelle Leisler's	No	N/A
	F007	T23	High	Common pipistrelle Leisler's Soprano pipistrelle Noctule Pipistrellus sp. Myotis	Common pipistrelle Leisler's Soprano pipistrelle Noctule Pipistrellus sp.	No	N/A
WS46264	F001	T44	Moderate	Noctule Common pipistrelle	Noctule Common pipistrelle Soprano pipistrelle Brown long-eared	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Soprano pipistrelle Brown long-eared Serotine			
ST106737	F002	T35	Moderate	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Myotis species	Soprano pipistrelle	No	N/A
WS1856	F003	T42	Moderate	Common pipistrelle Brown long-eared Soprano pipistrelle Myotis species Serotine Noctule Leisler's	Common pipistrelle Brown long-eared Soprano pipistrelle	Yes – seen landing in F003 on 19/07/17, and emerging from tree nearby on 30/08/17.	Common pipistrelle
U00010	F001	T14	High	Common pipistrelle Long-eared species Soprano pipistrelle Noctule Leisler's Serotine	Common pipistrelle Long-eared species	No	N/A
ST103525	F001	T3	High	Common pipistrelle Myotis species Serotine Soprano pipistrelle Leisler's	Common pipistrelle Myotis species Serotine Soprano pipistrelle	No	N/A

Land parcel	Feature number	Tree number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Noctule			
U00024	F005	T15	High	Serotine Myotis species Pipistrellus sp.	Serotine Myotis species	No	N/A
WS57193	F001	T25	High	Noctule Common pipistrelle Lesser horseshoe Pipistrellus sp. Myotis species Leisler's Nyctalus species	Noctule Common pipistrelle Lesser horseshoe	No	N/A

Table F.7: Summary of the bat activity associated with the trees surveyed within the zone of influence

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
ST153085	F001	T9	High	18/07/17	Dawn 05:17	Soprano pipistrelle recorded 51 minutes before dawn.	Mainly common and soprano pipistrelle heard foraging intermittently between 03:39 and 04:25. Brief noctule and myotis passes heard prior to the pipistrelle species. Only myotis species were heard after the pipistrelles.
				23/08/17	Dusk 20:15	Common pipistrelle recorded 46 minutes after sunset. Noctule recorded 47 minutes after sunset. Soprano pipistrelle recorded 54 minutes after sunset.	Unknown, small species commuting north-east at 21:00. Common pipistrelle heard predominantly throughout survey from 21:01 for one hour. Noctule recorded once at 21:02. Faint Soprano pipistrelle social calls and myotis species recorded between common pipistrelle calls ended at 22:04.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				17/10/17	Dawn 07:37	Soprano pipistrelle recorded 52 minutes before dawn.	Soprano pipistrelle recorded intermittently from 05:27 until an hour before sunrise. Serotine and Myotis both recorded at 06:22. No bats seen.
	F004	N/A	Moderate	01/06/17	Dusk 21:16	Soprano pipistrelle recorded 46 minutes after sunset. Myotis species recorded 51 minutes after sunset. Noctule recorded 57 minutes after sunset.	Soprano pipistrelle foraging past surveyors at 21:47 and 22:00. Heard foraging up to an hour later. Common pipistrelle also recorded intermittently at similar time to soprano pipistrelle. Noctule and serotine species also foraging between 22:00 and 22:42. Myotis species seen flying past surveyors, returning to forage around the tree for 6 minutes before return sporadically to where surveyors where sat at 22:05.
				12/09/17	Dawn 06:41	Soprano pipistrelle recorded 23 minutes before dawn. Common pipistrelle recorded 28 minutes before dawn.	Predominantly common pipistrelle. Seen commuting approximately 3m above the ground at 04:55 and heard continuously until 05:38 and again 28 minutes prior to sunrise. A single soprano pipistrelle pass at 06:18.
	F005	T10	Confirmed	12/09/17	Dawn 06:41	Common pipistrelle recorded 65 minutes before dawn.	Common pipistrelle heard foraging and commuting between 04:55 05:36 for three passes.
				18/09/17	Dusk 19:17	Noctule recorded 11 minutes after sunset. Common pipistrelle recorded 17 minutes after sunset. Leisler's noctule recorded 24 minutes after sunset. Brown long-eared recorded 53 minutes after sunset.	Mixture of socialising and foraging common pipistrelles from 17 minutes after sunset until 21:03. One common pipistrelle foraging in front of surveyors and flying south along the adjacent tree line. Myotis species, serotine, leisler's, and brown long-eared and soprano pipistrelle heard intermittently within survey area from 19:29 until 21:01.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				20/09/17	Dawn 06:53	Common pipistrelle recorded 83 minutes before dawn.	No returns or bats seen. Multiple bats foraging and socialising continuously for an hour and a half. Species included mainly soprano pipistrelle, myotis species, brown long-eared, plus some passes from leisler's noctule between 04:53 until 05:34. Common pipistrelle heard between 05:35 and 06:24.
				03/10/17	Dawn 07:14	Leisler's bat recorded 51 minutes before dawn.	Two passes by noctule commuting at 05:42. Soprano pipistrelle heard commuting from 05:46 and intermittently until 06:17. Leisler's bat heard at 06:23.
				16/10/17	Dusk 18:16	Noctule heard 28 minutes after sunset – no recording. Common pipistrelle seen 31 minutes with no recording. First recording 47 minutes after sunset.	Common pipistrelle possible emergence from nearby trees, flying in a north-east tree, to the east of the observed tree (F005) at 18:47. Note this was not picked up by the recorder. Foraging behaviour seen between 18:49 and 18:50, first foraging west and then east. Again, this was not picked up on the recorder. Same west to east behaviour between 18:55 and 18:57. Common pipistrelles heard foraging from 19:02 until 20:16. Soprano pipistrelles heard within common pipistrelle passes at 19:19 until 19:21. Brown long-eared also between 19:19 and 19:21. Myotis heard at 19:22.
	F010	T11	High	01/06/17	Dusk 21:16	Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 51 minutes after sunset – 29 minutes after standard	Soprano pipistrelle recorded between 21:45 and 21:51. Seen commuting and foraging east between 21:47 and 21:51. Common pipistrelle seen and heard between 21:52 and 21:59. Seen foraging and commuting towards the north and east. Common and soprano pipistrelle seen foraging south at 22:08, 22:09, and 22:12. Myotis species commuting south

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							at 22:14. Common pipistrelle commuting north-west at 22:21. Serotine seen flying south through gap between F010 and adjacent tree. Noctule, Leisler's, common pipistrelle, and soprano pipistrelle heard until 23:07.
				18/09/17	Dusk 19:17	Soprano pipistrelle recorded at sunset. Noctule recorded 22 minutes after sunset. Common pipistrelle recorded 25 minutes after sunset.	Soprano pipistrelle recorded from 19:17 and 19:39. Four passes at 20:28 but activity unknown. Fifteen passes from 20:51 and 20:56. Final passes from 21:03 to 21:16. Common pipistrelles heard from 19:42 until 20:24. Serotines recorded at 20:11 and 20:12. Noctule recorded commuting at 19:39, but unknown between 20:19 and 20:26.
				20/09/17	Dawn 06:53	Soprano pipistrelle recorded 32 minutes before dawn. Common pipistrelle recorded 36 minutes before dawn.	Soprano pipistrelle recorded from 04:54 until 05:09. Heard again from 05:19 intermittently until 06:22. Noctule recorded from 05:18 and intermittently at 05:37 and 06:15. Myotis also intermittent between 05:25 and 05:53. Three common pipistrelle calls between 06:03 and 06:16.
				03/10/17	Dawn 07:14	N/A	No bats seen or recorded.
				16/10/17	Dusk 18:17	Noctule recorded 27 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Brown long-eared recorded 41 minutes after sunset. Leisler's recorded 41 minutes after sunset. Myotis species recorded 65 minutes after sunset.	Distant and brief noctule pass heard at 18:44. Soprano pipistrelle seen commuting south past tree at 18:48. Same behaviour seen at 18:50 and 19:13. Myotis seen commuting north past tree at 20:07. Common pipistrelle, brown long-eared, and leisler's recorded intermittently from 18:49 until 20:19.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
	F011	T12	Confirmed	18/09/17	Dusk 19:15	Noctule recorded 13 minutes after sunset. Common pipistrelle recorded 19 minutes after sunset. Barbastelle recorded at 19:57 (42 minutes after sunset). Myotis species recorded 58 minutes after sunset.	Noctule seen commuting south at 19:28 and west at 19:39. Common pipistrelle seen emerging from middle of tree in low light towards the west at 19:40. Point not known precisely but is a likely recognised feature due to the height of bat seen. Common pipistrelle seen commuting from west to south at 19:48. Barbastelle recorded for one pass at 20:05. Myotis species, common pipistrelle, brown long-eared, and soprano pipistrelle heard until 21:05.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				20/09/17	Dawn 06:53	Pipistrellus sp. Recorded 14 minutes before dawn. Common pipistrelle recorded 30 minutes before dawn. Soprano pipistrelle recorded 32 minutes before dawn.	Possible common pipistrelle re-entry at 06:19 and 06:23. First possible re-entry saw two bats flying north; one heard and then a second flew around and seemingly into tree. Second possible re-entry showed same flight path as before with similar behaviour of flying straight into tree. Re-entry point cannot be confirmed. Noctule, soprano pipistrelle, barbastelle, and long eared-bats heard between 05:07 and 06:19, with additional long-eared bat call at 06:39 after re-entries.
				18/10/17	Dusk 18:11	Leisler's recorded 49 minutes after sunset. Noctule recorded 54 minutes after sunset. Myotis species recorded 87 minutes after sunset.	Leisler's, noctule, myotis species, and common pipistrelle recorded for one pass each at 19:00, 19:05, 19:38, and 19:46 respectively.
	F027	N/A	Moderate	11/09/17	Dusk 19:34	Soprano pipistrelle recorded 22 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Myotis species recorded 37 minutes after sunset.	Soprano pipistrelle seen socialising between 19:59 and 20:04 as part of a feeding loop. Two Myotis bats seen flying up to tree near to the feature on the opposite side of the tree to perch on the tree trunk at 20:11. Flew north-east and south-west. No re-entry was seen. Similar behaviour shown by one single bat around possible feeding perch at 20:15. Serotines, common pipistrelles, and noctules heard throughout survey until 21:22. Lots of social calls from soprano pipistrelle.
				13/09/17	Dawn 06:42	Pipistrellus sp. Recorded 36 minutes before dawn.	Pipistrellus sp. seen foraging in a circle and social calling over grassland between 2 to 5m above ground between

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							06:15 and 06:27; 27 and 15 minutes before sunrise. Other species seen but not heard social calling and foraging include common pipistrelle, myotis species, and soprano pipistrelle.
	F032	T13	Confirmed	11/09/17	Dusk 19:33	Soprano pipistrelle recorded 19 minutes after sunset. Noctule recorded 25 minutes after sunset. Brown long-eared recorded 31 minutes after sunset.	Soprano pipistrelle possible emergence from dead branch flying towards the south at 19:54. Possible noctule emergence from main trunk towards the south-west at 19:58. Brown long-eared potential emergence from trunk cavity on the west side. Difficult light conditions mean it is not confirmed. Flying west to east at 20:04. Soprano pipistrelle also seen circling nearby surveyors at 20:30. Serotine was the only other species recorded, and was heard until 21:28. Consistent calls recorded from common pipistrelle, noctule, brown long-eared and soprano pipistrelle.
				13/09/17	Dawn 06:42	Soprano pipistrelle recorded 18 minutes before dawn. Serotine recorded 20 minutes before dawn. Noctule recorded 20 minutes before dawn.	Soprano pipistrelle recorded from 04:53 until 05:14 for at least five passes. Noctule and serotine recorded from five passes at 06:22. At 06:20, potential serotine return to roost seen. Flying into woodpecker hole situated 5m high on the east side. Soprano pipistrelle return to roost into the dead branch 4m high on south side at 06:20 also.
				14/09/17	Dusk 19:26	Soprano pipistrelle recorded 21 minutes after sunset. Common pipistrelle recorded 51 minutes after sunset.	Potential soprano pipistrelle emergence from the split limb on tree located on the west side 21 minutes after sunset. Another potential emergence from unknown big bat species. From

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							woodpecker on the east side. Similar location to the re-entry seen on the 13/09/17 dawn survey. Serotine, noctule, soprano, myotis species and leisler's heard but not seen commuting and socialising until 21:23.
	F038	N/A	Moderate	17/07/17	Dusk 21:16	Noctule recorded 20 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Leisler's recorded 45 minutes after sunset. Myotis species recorded 51 minutes after sunset.	At least five noctule passes from 20 minutes after sunset. Four passes of soprano pipistrelle throughout survey from 21:40, 22:58, 23:06, and 23:16. Common pipistrelle recorded intermittently throughout the survey for multiple passes from 21:46 with the final pass at 23:16. Myotis species, brown long-eared, serotine, and leisler's bat recorded intermittently throughout the survey,
				23/08/17	Dawn 06:10	Common pipistrelle recorded 31 minutes before dawn. Soprano pipistrelle recorded 41 minutes before dawn.	Common pipistrelle recorded throughout the call. Intermittently from 04:15 until 04:40 for three passes. Continuously from 05:31 until 05:39. Soprano pipistrelle, serotine, and noctule recorded prior to common pipistrelles at 05:31.
	F039	N/A	Moderate	17/07/17	Dusk 21:17	Noctule recorded 19 after sunset. Soprano pipistrelle recorded 23 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Myotis species recorded 44 minutes after sunset.	Noctule heard between 21:36 and 21:40 initially, and then 22:43. Common pipistrelle recorded consistently from 21:46 until 23:16. Lots of social calls and seen flying towards the north-east and south-west. Possibly flew into F039 as sight was lost sight into the tree. Serotine, soprano pipistrelle, Nyctalus species, brown long-eared and myotis species were recorded intermittently.
				24/08/17	Dawn 06:11	Common pipistrelle recorded 36 minutes before dawn.	Two passes of common pipistrelle at 04:39, and another two passes at 05:32.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
ST128002	F001	T4	High	13/07/17	Dawn 05:11	Soprano pipistrelle recorded 39 minutes before dawn. Common pipistrelle recorded 48 minutes after sunset.	One pass of noctule at 03:16. Passes of soprano pipistrelle and common pipistrelle together from 03:18 and 04:32. One pass of myotis at 03:26 in between soprano and common pipistrelle.
				22/08/17	Dusk 20:19	Noctule recorded 22 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Brown long-eared recorded 40 minutes after sunset.	Noctule recorded for at least six passes from 20:41 and 20:43, with a single pass recorded at 21:23. Common pipistrelle was recorded consistently throughout survey from 20:51 to 22:06. At 20:51, common pipistrelle seen commuting south-west. In between this, serotine, soprano pipistrelle and two myotis passes were recorded.
				02/10/17	Dusk 18:47	Soprano pipistrelle recorded 18 minutes after sunset. Nyctalus species/serotine recorded 28 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Myotis species recorded 42 minutes after sunset.	Soprano pipistrelle and myotis recorded consistently together from 19:05 until 20:25. Common pipistrelle seen foraging towards the south at 19:19. Recorded again at 19:43 but not seen. Brown long-eared recorded for one brief pass at 19:55.
	F002	N/A	Moderate	19/07/17	Dawn 05:20	Soprano pipistrelle recorded 24 minutes before dawn. Common pipistrelle recorded 38 minutes before dawn.	Continuous foraging by common and soprano pipistrelle, myotis species, serotine and noctule. Began at 03:29 and ended 04:42, 38 minutes before sunrise. More passes from soprano pipistrelle than any other species.
				22/08/17	Dusk 20:19	Noctule recorded 18 minutes after sunset. Myotis species recorded 42 minutes after sunset. Leisler's recorded 45 minutes after sunset.	At least 13 noctule passes from 20:37 until 20:48. Noctule passes again at 22:12. Myotis pass at 21:01 following by Leisler's at 21:04. Soprano and common pipistrelle passes at same time as each other from 21:14 until 21:51. Predominantly soprano pipistrelle until end of survey. Serotine passes in

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							between pipistrelle passes for 10 minutes from 21:25.
	F003	T5	Confirmed	22/08/17	Dusk 20:19	Soprano pipistrelle recorded 22 minutes after sunset.	Noctules and soprano pipistrelles were recorded commuting through the site within 30 minutes of sunset. Common and soprano pipistrelles and noctules were heard making frequent foraging passes throughout the rest of the survey.
				05/10/17	Dawn 07:12	Soprano pipistrelle recorded 62 minutes before dawn.	Single, brief soprano pipistrelle pass at 06:10, 62 minutes prior to sunset.
				11/10/17	Dawn 07:25	Soprano pipistrelle recorded 20 minutes before dawn.	Common pipistrelle and noctules commuting within survey area.
				17/10/17	Dusk 18:13	Noctule recorded 9 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Brown long-eared recorded 52 minutes after sunset.	Two noctule passes at 18:22 and 19:08. Intermittent soprano pipistrelle passes at 18:38, followed by passes between 19:58 and 20:07. Serotine, brown long-eared, and common pipistrelle recorded for one pass each between 19:04 and 19:42.
				25/10/17	Dawn 07:52	Soprano pipistrelle recorded 23 minutes before dawn.	At least five soprano pipistrelle passes starting at 06:55 and ending at 07:29; 23 minutes before sunrise.
	F004	T6	Confirmed	30/05/17	Dusk 21:13	Soprano pipistrelle recorded 30 minutes after sunset Myotis species 31 minutes after sunset. Brown long-eared recorded 38 minutes after sunset.	Myotis and soprano pipistrelle predominantly recorded. Myotis emergence from the north growing branch of F004b 6m high between 22:06 and 22:12. Flew towards the east following emergence. Two soprano pipistrelles seen foraging continuously around tree at 22:15. Both myotis and soprano pipistrelle heard until 23:09, with occasional passes from serotine and leisler's.
				13/07/17	Dawn 05:11	Soprano pipistrelle recorded 56 minutes before dawn.	Continuous soprano pipistrelle passes from 03:17 until 04:15. Possible re-entry at 04:11. Had been continuously circling

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							around F004d before all calls abruptly stopped.
				22/08/17	Dusk 20:17	Noctule recorded 20 minutes after sunset. Brown long-eared recorded 38 minutes after sunset.	Noctule, distant passes from 20:37 until 20:48. Brown long-eared seen emerging from feature between 20:55 and 21:03. Seen foraging once around F004 each time before flying north past surveyor. Intermittent commuting soprano and common pipistrelle, serotine and leisler's bat following brown long-eared emergence, until 22:10.
				28/09/17	Dawn 07:07	Serotine recorded 63 minutes before dawn.	Intermittent passes from serotine, myotis, soprano pipistrelle, noctule, and long eared species between 05:04 and 06:04.
	F007	T7	High	31/05/17	Dusk 21:16	Noctule recorded 59 minutes after sunset.	Noctule foraging at 22:15 and 22:34. Continuous common pipistrelle passes between 22:20 and 22:36. Seen foraging along the hedgerow within this time. Myotis species and serotine passes recorded between 22:40 and 22:42.
				22/08/17	Dusk 20:17	Noctule recorded 20 minutes after sunset. Myotis species recorded 44 minutes after sunset.	Noctule recorded consistently for at least 13 passes from 20:37 until 20:48. Two myotis passes at 21:01 followed by four serotine passes at 21:04. From 21:14 until 21:51, serotine, soprano pipistrelle and common pipistrelle passes were occurring at the same time. Soprano pipistrelle continuously passing from 21:51 until 22:12. Serotine within these calls. Noctule pass again at 22:12.
				05/10/17	Dawn 07:17	N/A	No bats seen or heard.
				19/10/17	Dawn 07:40	Pipistrellus sp. Recorded 90 minutes before dawn.	Single pipistrelle pass at 06:10, an hour and a half prior to sunrise.
	F009	T8	High	31/05/17	Dusk 21:15	Common pipistrelle recorded 32 minutes after sunset.	Common and soprano pipistrelle passes heard together between 21:47 and 22:03.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Soprano pipistrelle recorded 34 minutes after sunset.	Same behaviour heard again between 22:16 until 22:46, and 22:51 until 23:11. One pass of brown long-eared at 22:06 and 22:51. Consistent noctule passes from 22:11 until 22:14. Serotine passes heard intermittently at 22:16 and 22:47.
				23/08/17	Dawn 06:10	Noctule recorded 15 minutes before dawn.	Three passes of soprano pipistrelle recorded at 04:18, 04:47, and 04:49. Leisler's, noctule, and serotine recorded between 04:20 and 05:55. One pass of brown long-eared at 04:35.
				18/10/17	Dusk 18:11	Noctule recorded 1 minute after sunset. Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Leisler's recorded 47 minutes after sunset.	Noctule recorded at similar time as survey night before close by. Potentially roosting within woodland. Lesser horseshoe recorded 128 minutes after sunset. Soprano pipistrelle heard consistently between 18:40 and 18:43. Common pipistrelle immediately between 18:44 and 18:54.
	F013	N/A	Moderate	13/07/17	Dusk 21:20	Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 43 minutes after sunset. Noctule recorded 52 minutes after sunset. Myotis species recorded 80 minutes after sunset.	Two common pipistrelles seen foraging in a west-north-south direction of feeding loop approximately 15m above ground level. Similar behaviour seen at 21:56 3 minutes later but flying just north to south, and 3m above ground, and at 22:28. Leisler's, noctule, and myotis heard intermittently between 22:39 until 23:17.
				18/10/17	Dusk 18:11	Soprano pipistrelle recorded 37 minutes after sunset.	Only bat heard was a brief soprano pipistrelle pass.
WS75059	F003	N/A	Moderate	26/05/17	Dawn 05:08	Noctule recorded 33 minutes before dawn.	Single soprano pipistrelle pass recorded at 03:24. Common pipistrelle heard consistently between 03:27 and 04:03. Similarly, between 04:13 and 04:19.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							Noctules seen commuting towards the west at 04:06 and 04:35.
				01/08/17	Dusk 20:56	Common pipistrelle recorded 47 minutes after sunset.	Common pipistrelle recorded consistently from 21:43 until 22:08 and then intermittently until 22:55. Seen foraging towards the west between 21:57 and 22:05 within a feeding loop along line of trees 5m above ground level. Myotis species seen at similar time, commuting south-east. Serotine, noctule and leisler's recorded between 21:51 and 22:49
	F008	T26	Confirmed	25/05/17	Dusk 21:08	Common pipistrelle recorded 38 minutes after sunset. Soprano pipistrelle recorded 42 minutes after sunset. Noctule recorded 52 minutes after sunset.	Common pipistrelle seen commuting from west to east. Possible emergence from tree to west of F008. 21:56 and 21:59. Bats fluttering through treeline at 1m height but no echolocation so no recording. Suspected noctules due to very quiet distorted calls 1 min prior to sighting. Noctule, soprano pipistrelle, and serotine seen commuting west to east at low height between 22:00 and 22:06.
				13/07/17	Dawn 05:11	Myotis sp. Recorded 50 minutes before dawn.	Continuous myotis passes from 03:13 until 04:21. Seen foraging west flying close to tree at 03:31. Return to roost seen four times between 03:42, and 04:08. Up to 38 bats returning at one point. Entering top of trunk cavity. Intermittent common pipistrelle, noctule and serotine calls in between myotis returns.
				01/08/17	Dusk 20:56	Soprano pipistrelle recorded 35 minutes after sunset. Myotis species recorded 54 minutes after sunset.	Soprano pipistrelle seen foraging towards the east 57 minutes after sunset. Five minutes later, common pipistrelle seen foraging in a circle from east to west and west again.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
	F010	N/A	Moderate	07/06/17	Dawn 04:57	Soprano pipistrelle recorded 47 minutes before dawn. Common pipistrelle recorded 57 minutes before dawn.	Consistent myotis passes from 03:02 for 12 minutes. Soprano and common pipistrelle recorded intermittently together from 03:17 until 04:10.
				13/07/17	Dawn 05:11	Leisler's bat recorded 53 minutes before dawn. Myotis sp. Recorded 53 minutes before dawn.	Myotis species seen foraging between 03:25 and 03:43. Feeding loop for four minutes around line of trees, 3m above ground level. Same behaviour five minutes later. Multiple bats seen swarming around F008 (where bats were seen re-entering) but no re-entry into F010. At 04:15, one myotis seen circling around line of trees where it may have re-entered F008.
				01/08/17	Dusk 20:56	Soprano pipistrelle recorded 35 minutes after sunset.	A single soprano pipistrelle seen commuting north along the hedge 35 minutes after sunset. Seen commuting north-east approximately 20 minutes later, flying between the trees then over the field in front of surveyors. Soprano and common pipistrelle passing intermittently from 21:31 until 22:05. Noctule and serotine calls between 22:19 until 22:43.
WS31054	F001	T24	High	26/06/17	Dusk 21:27	Noctule recorded 7 minutes after sunset. Brown long-eared recorded 53 minutes after sunset. Myotis species recorded 77 minutes after sunset.	Constant brown long-eared foraging for 6 minutes circling east and west. Same behaviour at 22:24. Brief feeding call from common pipistrelle seen flying south. Brown long-eared seen foraging west briefly 4 minutes later. Serotine seen foraging east for three minutes at 22:37. Foraging from these species heard until 23:22.
				03/08/17	Dusk 20:53	N/A	No bats seen or heard
				17/10/17	Dawn 07:37	N/A	No bats seen or heard

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
ST97976	F004	T2	High	05/07/17	Dawn 05:03	Common pipistrelle recorded 55 minutes before dawn. Soprano pipistrelle recorded 51 minutes before dawn.	Soprano pipistrelle and myotis species recorded continuously from 03:06 until 03:39. Common pipistrelle first heard at 03:36 and continued until 04:08. Brief noctule call at 03:49. Common pipistrelle bats seen foraging north over grassland along woodland edge for 6 minutes at 03:46. Foraging south-west at 04:08.
				03/08/17	Dusk 20:53	Pipistrellus sp. recorded 31 minutes after sunset. Common pipistrelle recorded 38 minutes after sunset. Noctule recorded 43 minutes after sunset.	Pipistrellus seen foraging near F004 at 21:24, and common pipistrelle foraging north at 21:31. Pipistrellus sp. seen 21 minutes later foraging south. Both species foraging intermittently until end of survey. Single noctule pass at 21:36 heard commuting
				23/10/17	Dusk 18:01	All bats recorded after their usual emergence time	Serotine passes from 19:28 until 19:35. Multiple passes. Likely surveyors were sitting near the edge of a single bat's foraging loop as most calls were quiet but at regular intervals of 1 minute apart from 19:35 until 19:52. Faint long-eared bat call at 19:31, and common pipistrelle pass at 19:50.
WS16934	F001	N/A	Moderate	05/07/17	Dusk 21:26	All bats recorded after their usual emergence time	Common pipistrelles recorded foraging between 22:27 and 22:41. Heard within trees, looked like bat emerged from a branch at top of the tree. Noctule commuting pass at 23:07.
				01/08/17	Dawn 05:36	Common pipistrelle recorded 66 minutes before dawn.	Serotine heard commuting then foraging from 03:36 until 03:46.
	F002	T18	High	05/07/17	Dusk 21:27	N/A	Brief serotine passes from 22:27 until 22:36. Intermittent soprano and common pipistrelle foraging from 22:42 until 23:18.
				31/07/17	Dusk 21:04	Common pipistrelle recorded 49 minutes after sunset.	Constant common pipistrelle passes and feeding buzz from 21:53 until 22:58. Two noctule foraging passes at 22:16.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Noctule recorded 70 minutes after sunset.	
				30/08/17	Dawn 06:20	Soprano pipistrelle recorded 84 minutes before dawn.	Single soprano pipistrelle pass recorded at 04:55.
	F003	T19	High	05/07/17	Dusk 21:28	All bats recorded after their usual emergence time	Noctule recorded at 23:07, 91 minutes after sunset.
				30/08/17	Dawn 06:20	N/A	No bats seen or heard. Confirmed in analysis.
				23/10/17	Dusk 18:01	Noctule recorded 56 minutes after sunset. Common pipistrelle recorded 74 minutes after sunset.	Constant noctule commuting calls from 18:56 until 19:37. Single common pipistrelle pass at 19:13 and leisler's bat passes from 19:28 for four minutes.
WS75681	F001	T27	High	06/07/17	Dusk 21:27	NA	No bats recorded for the first hour of survey. From 22:07 until the end of the survey common pipistrelles were recorded making frequent foraging passes.
				22/08/17	Dawn 06:08	Common pipistrelle recorded 36 minutes before dawn.	No bats seen but common pipistrelle, leisler's, and soprano pipistrelle recorded commuting from 04:20 until 05:31.
				18/10/17	Dusk 18:11	Common pipistrelle recorded 30 minutes after sunset.	Common pipistrelle heard commuting half an hour after sunset.
	F002	T28	High	06/07/17	Dusk 21:26	Common pipistrelle recorded19 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Intermittent common and soprano pipistrelle bats recorded foraging within area until 22:00. Single leisler's pass a 23:21.
				21/08/17	Dusk 20:20	Noctule recorded 10 minutes before sunset. Common pipistrelle recorded 19 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Myotis species recorded 46 minutes after sunset.	Continuous foraging of noctule, serotine, common and soprano pipistrelle, and myotis from 20:10 until 22:14.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				13/09/17	Dawn 06:42	Common pipistrelle recorded 19 minutes before dawn.	Soprano pipistrelle heard foraging 1 hour before sunrise. Myotis species, nyctalus species, and common pipistrelle brief passes heard.
	F005	T29	High	12/07/17	Dusk 21:22	Common pipistrelle recorded 17 minutes after sunset. Pipistrelles species recorded 21 minutes after sunset. Serotine recorded 23 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset.	One soprano pipistrelle seen commuting south 53 minutes after sunset. Continuous commuting and foraging by soprano and common pipistrelle heard throughout survey. Occasional passes by serotine at 21:45 and 22:02.
				21/08/17	Dusk 20:19	Common pipistrelle recorded 28 minutes after sunset. Serotine recorded 29 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset.	Serotine seen foraging east, 5m above ground level 45 minutes after sunset. Myotis seen twice foraging west between 21:10 and 21:16. Mixture of common and soprano pipistrelle, serotine, myotis, noctule, and leisler's bats heard continuously.
				13/09/17	Dawn 06:44	Soprano pipistrelle recorded 56 minutes before dawn.	Common pipistrelle heard foraging, commuting, and socialising from 04:55 until 05:28. Three minutes of continuous soprano pipistrelle foraging an hour before sunrise at 05:44.
	F006	T30	High	12/07/17	Dusk 21:21	Common pipistrelle recorded 15 minutes after sunset. Pipistrellus sp. recorded 19 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Myotis species recorded 49 minutes after sunset.	Common pipistrelle seen foraging for two passes 5m above ground level, 42 minutes after sunset. Soprano pipistrelle heard during part of feeding loop at 22:06, and 22:32. Serotine and myotis brief passes at 22:02 and 22:10.
				21/08/17	Dusk 20:19	Serotine recorded 2 minutes before sunset. Common pipistrelle recorded 16 minutes after sunset.	Serotine flying west to east at 20:53 for one minute and 21:01 for one minute. Lesser horseshoe recorded for one pass at 22:16. Soprano and common

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Soprano pipistrelle recorded 25 minutes after sunset. Noctule recorded 43 minutes after sunset.	pipistrelle, noctule, brown long-eared, leisler's bat and myotis sp. heard intermittently throughout survey.
				13/09/17	Dawn 06:44	Soprano pipistrelle recorded 56 minutes before dawn.	Five faint common and soprano pipistrelle calls heard between 04:50 and 05:47.
	F007	T31	High	06/07/17	Dawn 05:04	Noctule recorded 27 minutes before dawn.	Single soprano pipistrelle pass at 03:24 and noctule commuting pass 27 minutes before sunrise.
				21/08/17	Dusk 20:19	Soprano pipistrelle recorded 1 minute after sunset. Common pipistrelle recorded 20 minutes after sunset. Serotine recorded 30 minutes after sunset. Myotis species recorded 46 minutes after sunset.	Myotis species seen foraging in an orchard 54 minutes after sunset. Foraging common pipistrelle, soprano pipistrelle, and serotine heard from 20:20 until 21:01. Continuous passes of soprano and common pipistrelle, leisler's, serotine, and noctule until 22:18.
				12/09/17	Dusk 19:31	N/A	No bats heard or seen.
				19/10/17	Dawn 07:40	Soprano pipistrelle recorded 60 minutes before dawn. Lesser horseshoe bat recorded 70 minutes before dawn.	Lesser horseshoe, Pipistrellus sp., and soprano pipistrelle heard for single pass each between 06:30 and 06:40.
	F008	T32	High	06/07/17	Dawn 05:04	Noctule recorded 27 minutes before dawn. Common pipistrelle recorded 30 minutes before dawn.	Seven minutes of continuous Nyctalus species calls at 03:19 followed by two leisler's passes 20 minutes later. Single lesser horseshoe pass 52 minutes before sunrise. One soprano pipistrelle pass followed by five minutes of common pipistrelle passes at 04:29. Final call from noctule at 04:37.
				21/08/17	Dusk 20:18	Soprano pipistrelle recorded 2 minutes after sunset. Pipistrellus sp. recorded 17 minutes after sunset.	Common and soprano pipistrelle foraging from 20:20 until 20:58. Myotis species and brown long-eared foraging briefly between 21:01 and 21:18. Big bats; serotine, noctule, and leisler's heard

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Common pipistrelle recorded 21 minutes after sunset. Myotis species recorded 27 minutes after sunset. Brown long-eared recorded 50 minutes after sunset.	repeatedly from 21:20 until 22:15. Single, distant lesser horseshoe pass at 22:14.
				12/09/17	Dusk 19:31	Common pipistrelle recorded 10 minutes after sunset.	Two common pipistrelle passes at 19:41.
				19/10/17	Dawn 07:40	Soprano pipistrelle recorded 46 minutes before dawn. Lesser horseshoe bat recorded 68 minutes before sunset.	Lesser horseshoe pass 68 minutes prior to sunrise. Two soprano pipistrelle passes heard between 06:52 and 06:54.
	F009	T33	High	21/08/17	Dusk 20:19	Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset. Noctule recorded 28 minutes after sunset. Myotis species recorded 47 minutes after sunset.	Common and soprano pipistrelle, and serotine heard continuously throughout survey with intermittent noctule, leisler's and myotis species calls within this. Activity heard from 20:44 until 22:21.
				12/09/17	Dusk 19:31	N/A	No bats seen or heard. Less than optimal weather conditions.
				14/09/17	Dawn 06:44	N/A	No bats seen or heard.
				18/10/17	Dawn 07:38	Soprano pipistrelle recorded 32 minutes before dawn. Common pipistrelle recorded 38 minutes before dawn.	Multiple passes of soprano and common pipistrelle, foraging between 06:23 and 07:06.
	F011	T34	High	06/07/17	Dusk 21:26	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 52 minutes after sunset. Myotis species recorded 52 minutes after sunset.	Common pipistrelle constantly foraging and commuting from 21:58 until 22:09 and then 22:18 until 23:14 for at least 12 passes. Intermittent myotis species and soprano pipistrelle between 22:18 and 22:24.
				22/08/17	Dawn 06:08	Noctule recorded 98 minutes before dawn.	Commuting serotine passes between 04:39 until 04:40 and single commuting noctule pass at 04:40.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				24/10/17	Dusk 17:59	Serotine recorded 44 minutes after sunset. Myotis species recorded 74 minutes after sunset.	Serotine and Nyctalus species passes 44 minutes after sunset. Two myotis passes at 19:12.
U00029-43	F017	T16	High	18/07/17	Dusk 21:15	Soprano pipistrelle recorded 5 minutes after sunset. Common pipistrelle recorded 15 minutes after sunset. Myotis species recorded 20 minutes after sunset. Brown long-eared recorded 31 minutes after sunset.	Soprano pipistrelle seen foraging north to south along adjacent track between 21:24 and 21:34. Continuous common pipistrelle foraging from 21:37 until 21:56, seen foraging along the track. Mixture of brown long-eared, leisler's, serotine, myotis, and common pipistrelle from 22:00 until 23:14.
				25/07/17	Dusk 21:08	Common pipistrelle recorded 12 minutes after sunset. Noctule recorded 19 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset. Pipistrellus sp. recorded 20 minutes after sunset. Myotis species recorded 23 minutes after sunset.	Constant common pipistrelle calls 12 minutes after sunset and with soprano pipistrelle 21:27 until 21:47. Myotis species and serotine passes in between. Continuous myotis passes from 21:47 until 22:27. At least six passes of common and soprano pipistrelle 22:49 for 15 minutes.
				26/07/17	Dawn 05:27	Serotine recorded 7 minutes before dawn. Common pipistrelle recorded 19 minutes before dawn.	Continuous common pipistrelle passes from 03:26 until 20 minutes before sunrise. Single noctule pass at 03:31, seven minutes of soprano pipistrelle passes from 03:50, and myotis passes at 04:07 within the common pipistrelle calls.
				09/08/17	Dawn 05:48	Leisler's bat recorded 95 minutes before dawn.	Two passes of leisler's between 04:08 and 04:13.
	F018	N/A	Confirmed	04/07/17	Dusk 21:28	Soprano pipistrelle recorded 15 minutes before sunset. Myotis species recorded 23 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Soprano pipistrelle seen foraging north 20 minutes after sunset. Continuous myotis species passes from 21:51 until 23:21. Within that, intermittent common pipistrelle passes.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				25/07/17	Dusk 21:08	Common pipistrelle recorded 14 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset. Myotis species recorded 22 minutes after sunset. Noctule recorded 53 minutes after sunset.	One soprano pipistrelle and common pipistrelle foraging north between 21:33 and 21:37. Three myotis individuals foraging east to west continuously from 21:37 until 22:30. Intermittent common pipistrelle, soprano pipistrelle and leisler's passes from 22:36 until 23:06.
				26/07/17	Dawn 05:27	Soprano pipistrelle recorded 13 minutes after dawn. Serotine recorded 7 minutes before dawn. Common pipistrelle recorded 19 minutes before dawn.	One soprano pipistrelle seen flying 10m high in canopy just south of F018 but no re-entry was seen. Constant common and soprano pipistrelle calls, and intermittent myotis species calls before and after the sighting.
				10/08/17	Dawn 05:49	Common pipistrelle recorded 43 minutes before dawn. Soprano pipistrelle recorded 46 minutes before dawn.	Common pipistrelle seen foraging high in canopy, then diving in front of surveyor and off to the south 50 minutes before sunrise. Myotis species, common pipistrelle, serotine, and soprano pipistrelle heard between 04:09 and 05:03.
	F019	T17	High	05/07/17	Dawn 05:03	Soprano pipistrelle recorded 4 minutes before dawn.	Common pipistrelle continuously foraging from 03:06 for 10 minutes and intermittently until 04:06. Brief myotis species and soprano pipistrelle passes in between common pipistrelle foraging.
				26/07/17	Dusk 21:06	Soprano pipistrelle recorded 24 minutes before sunset. Pipistrellus sp. recorded 13 minutes after sunset. Common pipistrelle recorded 14 minutes after sunset. Brown long-eared recorded 28 minutes after sunset.	Soprano pipistrelle seen flying south-west 13 minutes before sunset and foraging 15 minutes after sunset. Common pipistrelle foraging from 21:20 until 21:40. Single brown long-eared pass at 22:11. Soprano pipistrelle and serotine passes heard for 15 minutes from 22:27.
				27/07/17	Dawn 05:26	Soprano pipistrelle recorded 12 minutes after dawn.	Soprano pipistrelle foraging continuously from 04:20 until 05:38 including an

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Serotine recorded 13 minutes before dawn. Myotis sp. Recorded 26 minutes before dawn.	individual foraging in the canopy from 05:15 until 05:26. Other species heard for brief passes include myotis species, serotine, common pipistrelle, and noctule from 03:30 until 05:13.
				08/08/17	Dusk 20:46	Soprano pipistrelle recorded at sunset. Lesser horseshoe recorded 32 minutes after sunset. Brown long-eared recorded 34 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset. Myotis species recorded 48 minutes after sunset.	Faint soprano pipistrelle foraging calls from 20:46 until 21:06. Single lesser horseshoe heard call 32 minutes after sunset. Brown long-eared between 21:20 and 21:28. Noctule foraging continuously from 22:15 until 22:39. A final, brief pass of myotis species two hours after sunset.
WS26353	F002	T20	Confirmed	10/07/17	Dusk 21:23	Common pipistrelle recorded 29 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Serotine recorded 41 minutes after sunset. Myotis recorded 59 minutes after sunset.	Continuous common and soprano pipistrelle calls until two hours after sunset including a common pipistrelle emergence from F002 flying north 29 minutes after sunset; and foraging seven minutes later and soprano pipistrelle commuting north between 22:13 and 22:21. Myotis species recorded intermittently from 59 minutes after sunset, for 25 minutes.
				23/08/17	Dawn 06:10	Common pipistrelle recorded 30 minutes before dawn.	Soprano pipistrelle, common pipistrelle, noctule, leisler's heard repeatedly from 04:13 until half an hour prior to sunrise. Myotis passes heard only at 05:23.
				27/09/17	Dusk 18:56	Soprano pipistrelle recorded 11 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset.	Continuous common and soprano pipistrelle recorded until an hour and a half after sunset including a soprano pipistrelle foraging in circular directions for 10 minutes at 19:07 and for 50 minutes at 19:24. Two serotine passes at 20:51.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
	F003	T21	High	10/07/17	Dusk 21:23	Common pipistrelle recorded 31 minutes after sunset. Myotis species recorded 71 minutes after sunset.	Common pipistrelle recorded continuously commuting from 21:52 for one hour. Single soprano pipistrelle pass at 23:14.
				23/08/17	Dusk 20:15	Soprano pipistrelle recorded 28 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Serotine recorded 41 minutes after sunset. Myotis species recorded 48 minutes after sunset.	Common and soprano pipistrelle recorded together continuously 28 minutes after sunset for four minutes. Soprano pipistrelle heard intermittently until two hours after sunset. Serotine foraging 41 minutes after sunset and intermittently at 21:22 and 21:47. Leisler's bat heard for four passes for twenty minutes from 21:54.
				05/10/17	Dawn 07:14	Noctule recorded 37 minutes before dawn.	Continuous noctule and common pipistrelle foraging together from 05:16 for 20 minutes. Common pipistrelle heard only from 05:36 for 25 minutes, followed by continuous noctule recording from 06:03 for 30 minutes.
				19/10/17	Dawn 07:40	N/A	No bats seen or heard.
	F004	T22	High	10/07/17	Dusk 21:23	Pipistrellus sp. recorded 22 minutes before sunset. Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle and Myotis species recorded 51 minutes after sunset.	Soprano pipistrelle seen foraging south west, 2m above ground level within woodland 51 minutes after sunset. Faint calls at 22:26, and continuous calls heard for 13 minutes from 23:10. Common pipistrelle heard foraging 35 minutes after sunset and at 22:39. Single myotis pass 51 minutes after sunset only.
				23/08/17	Dusk 20:15	Soprano pipistrelle recorded 27 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Leisler's recorded 41 minutes after sunset. Myotis species recorded 48 minutes after sunset.	Brown long-eared bat seen commuting north-west to south-west over surveyors at 21:52. Soprano pipistrelle heard continuously from 21:21 until 22:12. Few common pipistrelle passes 29 minutes after sunset and intermittently from 22:02 for nine minutes. Serotine passes at 21:08, and one hour later.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				05/10/17	Dawn 07:14	Noctule recorded 37 minutes before dawn.	Noctule and common pipistrelle continuously foraging together from 05:16 for 20 minutes. Only common pipistrelle from 05:36 for 25 minutes, followed by continuous noctule from 06:03 for 30 minutes.
				19/10/17	Dawn 07:40	N/A	No bats seen or heard.
	F007	T23	High	11/07/17	Dawn 05:09	Noctule recorded 99 minutes before dawn.	Single pass of myotis species at 03:12, and soprano pipistrelle and noctule at 03:40.
				08/08/17	Dusk 20:46	Common pipistrelle recorded 20 minutes after sunset. Leisler's recorded 22 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Common pipistrelle foraging from 21:06 until 21:36 and heard for another hour. Noctule and leisler's heard within common pipistrelle calls for ten minutes from 21:36.
				24/10/17	Dusk 17:59	Noctule recorded 13 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Pipistrellus sp. recorded 37 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset.	Noctules commuting 13 minutes after sunset and 30 minutes later. Brief, intermittent common and soprano pipistrelle calls from 18:24 until 19:11. Single leisler's pass 70 minutes after sunset.
WS46264	F001	T44	Moderate	10/07/17	Dusk 21:23	Noctule recorded 16 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset. Soprano pipistrelle recorded 45 minutes after sunset. Brown long-eared bat recorded 58 minutes after sunset.	Common pipistrelle seen foraging around north-west of tree for two minutes at 21:51. Seen 20 minutes later circling above surveyors. Repeatedly foraging from 22:49 for 20 minutes. Intermittent noctule and soprano pipistrelle calls until two hours after sunset.
				03/08/17	Dawn 05:39	Soprano pipistrelle recorded 67 minutes before dawn.	No bats seen or heard.
				24/10/17	Dusk 17:59	Serotine recorded 57 minutes after sunset.	Bat activity heard from 18:56 for seven minutes. Firstly, two serotine passes, and

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Noctule recorded 64 minutes after sunset.	then one faint noctule call at 19:03. All bats thought to be commuting.
ST106737	F002	T35	Moderate	24/08/17	Dawn 06:11	Common pipistrelle recorded 43 minutes before dawn.	Few passes of commuting common pipistrelle and Pipistrellus sp.
				29/08/17	Dusk 20:04	Soprano pipistrelle recorded 30 minutes after sunset. Nyctalus species recorded 46 minutes after sunset. Myotis species recorded 83 minutes after sunset.	Soprano pipistrelle commuting continuously for 30 minutes. Single common pipistrelle pass over an hour after sunset. Continuous passes by myotis species from 21:27 for 20 minutes.
WS1856	F003	T42	Moderate	19/07/17	Dawn 05:18	Soprano pipistrelle recorded 2 minutes before dawn. Common pipistrelle recorded 18 minutes before dawn.	Common pipistrelle seen landing in F003 as a possible re-entry 45 minutes prior to dawn. At least three soprano pipistrelle bats seen flying around feature tree from 04:59 until 05:05. Possibly same single soprano pipistrelle seen flying around feature tree and another large tree with obvious Y in trunk 12m high on the north side until 05:16. In between common and soprano pipistrelle calls, at least six myotis calls for one minute at 03:29.
				30/08/17	Dusk 20:00	Common pipistrelle recorded 21 minutes after sunset. Brown long-eared recorded 32 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset. Myotis species recorded 84 minutes after sunset.	Common pipistrelle seen emerging from tree nearby 21 minutes after sunset before flying north-west. Recorded continuously and seen foraging, commuting, and socialising between north and north-east from 20:24 until 21:52. Intermittent soprano, serotine, brown long-eared, noctule, and leisler's for five minutes until 20:40. Myotis species heard 84 minutes after sunset only.
U00010	F001	T14	High	18/07/17	Dawn 05:12	Common pipistrelle recorded 63 minutes before dawn.	Common pipistrelle commuting and foraging within survey area for a few passes from 03:40 for approximately 20

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							minutes. Pipistrellus sp. foraging intermittently for four minutes at 04:05.
				30/08/17	Dusk 19:59	Common pipistrelle recorded 31 minutes after sunset. Pipistrellus sp. recorded 46 minutes after sunset. Soprano pipistrelle recorded 56 minutes after sunset. Noctule recorded 73 minutes after sunset.	Mixture of common and soprano pipistrelles, serotine, noctule, and leisler's heard commuting or foraging for single passes from 20:30 until 21:19. Serotine was seen foraging towards the west 48 minutes after sunset.
				18/10/17	Dusk 18:11	Long-eared species recorded 50 minutes after sunset.	Long-eared species heard commuting for two passes between 19:00 and 19:16. Single serotine call over an hour after sunset.
ST103525	F001	T3	High	11/07/17	Dawn 05:08	Common pipistrelle recorded 7 minutes before dawn.	Common pipistrelle was the dominant species; foraging continuously two hours prior to sunrise. Individual seen flying 5m over hard standing ground next to woodland edge for 20 minutes from 03:52. Single leisler's pass at 03:41 as the only other bat species recorded within the survey area.
				29/08/17	Dusk 20:02	Common pipistrelle recorded 17 minutes after sunset. Myotis species recorded 18 minutes after sunset. Serotine recorded 18 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset.	Common pipistrelle heard commuting and foraging continuously from until two hours after sunset. Serotine, myotis, and soprano pipistrelle were heard commuting and foraging intermittently in between periods of common pipistrelle passes.
				18/10/17	Dusk 18:12	Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 51 minutes after sunset.	Continuous common pipistrelle passes after sunset for 10 minutes. Single soprano pipistrelle pass 45 minutes after sunset. Noctule pass 80 minutes after sunset.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
U00024	F005	T15	High	25/09/17	Dusk 19:01	Serotine recorded 26 minutes after sunset. Myotis species recorded 55 minutes after sunset.	Serotine was the predominant species heard foraging 26 minutes after sunset until 20:34. Myotis species foraging for 25 minutes from 55 minutes after sunset.
				23/10/17	Dusk 18:01	Pipistrellus sp. recorded 43 minutes after sunset.	Serotine was the dominant species heard foraging and commuting 47 minutes after sunset for one hour. Pipistrellus sp. commuting 45 minutes after sunset and myotis two hours after sunset were the only other species recorded.
				25/10/17	Dawn 07:50	N/A	No bats seen or heard.
WS57193	F001	T25	High	05/10/17	Dawn 07:17	Common pipistrelle recorded 44 minutes before dawn. Myotis sp. recorded 59 minutes before dawn.	Common pipistrelle recorded from 05:28 for just over one hour. Occasional passes by Pipistrellus sp. and myotis species in between common pipistrelle recordings.
				16/10/17	Dusk 18:15	Noctule recorded 32 minutes after sunset.	Noctule and Nyctalus species commuting 32 minutes after sunset for eight minutes.
				24/10/17	Dawn 07:48	Pipistrellus sp. Recorded 28 minutes before dawn. Common pipistrelle recorded 28 minutes before dawn.	Two socialising common pipistrelle bats seen flying from the south of F001 towards the east. Heard foraging continuously before and after this sighting. Commuting soprano pipistrelle heard first at 06:22.
				25/10/17	Dusk 17:57	Noctule recorded 19 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset. Lesser horseshoe recorded 33 minutes after sunset.	Mainly common pipistrelle and serotine bats heard commuting and foraging within survey area. Intermittent passes of leisler's and Nyctalus species amongst predominant common pipistrelle. Single lesser horseshoe pass recorded 33 minutes after sunset only.

Table F.7: Summary of the bat activity associated with the trees surveyed within the zone of influence.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
ST153085	F001	T9	High	18/07/17	Dawn 05:17	Soprano pipistrelle recorded 51 minutes before dawn.	Mainly common and soprano pipistrelle heard foraging intermittently between 03:39 and 04:25. Brief noctule and myotis passes heard prior to the pipistrelle species. Only myotis species were heard after the pipistrelles.
				23/08/17	Dusk 20:15	Common pipistrelle recorded 46 minutes after sunset. Noctule recorded 47 minutes after sunset. Soprano pipistrelle recorded 54 minutes after sunset.	Unknown, small species commuting north-east at 21:00. Common pipistrelle heard predominantly throughout survey from 21:01 for one hour. Noctule recorded once at 21:02. Faint Soprano pipistrelle social calls and myotis species recorded between common pipistrelle calls ended at 22:04.
				17/10/17	Dawn 07:37	Soprano pipistrelle recorded 52 minutes before dawn.	Soprano pipistrelle recorded intermittently from 05:27 until an hour before sunrise. Serotine and Myotis both recorded at 06:22. No bats seen.
	F004	N/A	Moderate	01/06/17	Dusk 21:16	Soprano pipistrelle recorded 46 minutes after sunset. Myotis species recorded 51 minutes after sunset.	Soprano pipistrelle foraging past surveyors at 21:47 and 22:00. Heard foraging up to an hour later. Common pipistrelle also recorded intermittently at similar time to soprano pipistrelle. Noctule and serotine species also foraging between 22:00 and 22:42. Myotis species seen flying past

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Noctule recorded 57 minutes after sunset.	surveyors, returning to forage around the tree for 6 minutes before return sporadically to where surveyors where sat at 22:05.
				12/09/17	Dawn 06:41	Soprano pipistrelle recorded 23 minutes before dawn. Common pipistrelle recorded 28 minutes before dawn.	Predominantly common pipistrelle. Seen commuting approximately 3m above the ground at 04:55 and heard continuously until 05:38 and again 28 minutes prior to sunrise. A single soprano pipistrelle pass at 06:18.
	F005	T10	Confirmed	12/09/17	Dawn 06:41	Common pipistrelle recorded 65 minutes before dawn.	Common pipistrelle heard foraging and commuting between 04:55 05:36 for three passes.
				18/09/17	Dusk 19:17	Noctule recorded 11 minutes after sunset. Common pipistrelle recorded 17 minutes after sunset. Leisler's noctule recorded 24 minutes after sunset. Brown long-eared recorded 53 minutes after sunset.	Mixture of socialising and foraging common pipistrelles from 17 minutes after sunset until 21:03. One common pipistrelle foraging in front of surveyors and flying south along the adjacent tree line. Myotis species, serotine, leisler's, and brown long-eared and soprano pipistrelle heard intermittently within survey area from 19:29 until 21:01.
				20/09/17	Dawn 06:53	Common pipistrelle recorded 83	No returns or bats seen. Multiple bats foraging and socialising continuously for an hour and a half.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes before dawn.	Species included mainly soprano pipistrelle, myotis species, brown long-eared, plus some passes from leisler's noctule between 04:53 until 05:34. Common pipistrelle heard between 05:35 and 06:24.
				03/10/17	Dawn 07:14	Leisler's bat recorded 51 minutes before dawn.	Two passes by noctule commuting at 05:42. Soprano pipistrelle heard commuting from 05:46 and intermittently until 06:17. Leisler's bat heard at 06:23.
				16/10/17	Dusk 18:16	Noctule heard 28 minutes after sunset – no recording. Common pipistrelle seen 31 minutes with no recording. First recording 47 minutes after sunset.	Common pipistrelle possible emergence from nearby trees, flying in a north-east tree, to the east of the observed tree (F005) at 18:47. Note this was not picked up by the recorder. Foraging behaviour seen between 18:49 and 18:50, first foraging west and then east. Again, this was not picked up on the recorder. Same west to east behaviour between 18:55 and 18:57. Common pipistrelles heard foraging from 19:02 until 20:16. Soprano pipistrelles heard within common pipistrelle passes at 19:19 until 19:21. Brown long-eared also between 19:19 and 19:21. Myotis heard at 19:22.
	F010	T11	High	01/06/17	Dusk 21:16	Soprano pipistrelle recorded 29 minutes after sunset.	Soprano pipistrelle recorded between 21:45 and 21:51. Seen commuting and foraging east between 21:47 and 21:51. Common pipistrelle seen and heard between

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Common pipistrelle recorded 51 minutes after sunset – 29 minutes after standard	21:52 and 21:59. Seen foraging and commuting towards the north and east. Common and soprano pipistrelle seen foraging south at 22:08, 22:09, and 22:12. Myotis species commuting south at 22:14. Common pipistrelle commuting north-west at 22:21. Serotine seen flying south through gap between F010 and adjacent tree. Noctule, Leisler's, common pipistrelle, and soprano pipistrelle heard until 23:07.
				18/09/17	Dusk 19:17	Soprano pipistrelle recorded at sunset. Noctule recorded 22 minutes after sunset. Common pipistrelle recorded 25 minutes after sunset.	Soprano pipistrelle recorded from 19:17 and 19:39. Four passes at 20:28 but activity unknown. Fifteen passes from 20:51 and 20:56. Final passes from 21:03 to 21:16. Common pipistrelles heard from 19:42 until 20:24. Serotines recorded at 20:11 and 20:12. Noctule recorded commuting at 19:39, but unknown between 20:19 and 20:26.
				20/09/17	Dawn 06:53	Soprano pipistrelle recorded 32 minutes before dawn. Common pipistrelle recorded 36 minutes before dawn.	Soprano pipistrelle recorded from 04:54 until 05:09. Heard again from 05:19 intermittently until 06:22. Noctule recorded from 05:18 and intermittently at 05:37 and 06:15. Myotis also intermittent between 05:25 and 05:53. Three common pipistrelle calls between 06:03 and 06:16.
				03/10/17	Dawn 07:14	N/A	No bats seen or recorded.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				16/10/17	Dusk 18:17	Noctule recorded 27 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Brown long-eared recorded 41 minutes after sunset. Leisler's recorded 41 minutes after sunset. Myotis species recorded 65 minutes after sunset.	Distant and brief noctule pass heard at 18:44. Soprano pipistrelle seen commuting south past tree at 18:48. Same behaviour seen at 18:50 and 19:13. Myotis seen commuting north past tree at 20:07. Common pipistrelle, brown long-eared, and leisler's recorded intermittently from 18:49 until 20:19.

	F011	T12	Confirmed	18/09/17	Dusk 19:15	Noctule recorded 13 minutes after sunset. Common pipistrelle recorded 19 minutes after sunset. Barbastelle recorded at 19:57 (42 minutes after sunset). Myotis species recorded 58 minutes after sunset.	Noctule seen commuting south at 19:28 and west at 19:39. Common pipistrelle seen emerging from middle of tree in low light towards the west at 19:40. Point not known precisely but is a likely recognised feature due to the height of bat seen. Common pipistrelle seen commuting from west to south at 19:48. Barbastelle recorded for one pass at 20:05. Myotis species, common pipistrelle, brown long-eared, and soprano pipistrelle heard until 21:05.
				20/09/17	Dawn 06:53	Pipistrellus sp. Recorded 14 minutes before dawn.	Possible common pipistrelle re-entry at 06:19 and 06:23. First possible re-entry saw two bats flying north; one heard and then a second flew around

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Common pipistrelle recorded 30 minutes before dawn. Soprano pipistrelle recorded 32 minutes before dawn.	and seemingly into tree. Second possible re-entry showed same flight path as before with similar behaviour of flying straight into tree. Re-entry point cannot be confirmed. Noctule, soprano pipistrelle, barbastelle, and long eared-bats heard between 05:07 and 06:19, with additional long-eared bat call at 06:39 after re-entries.
				18/10/17	Dusk 18:11	Leisler's recorded 49 minutes after sunset. Noctule recorded 54 minutes after sunset. Myotis species recorded 87 minutes after sunset.	Leisler's, noctule, myotis species, and common pipistrelle recorded for one pass each at 19:00, 19:05, 19:38, and 19:46 respectively.
	F027	N/A	Moderate	11/09/17	Dusk 19:34	Soprano pipistrelle recorded 22 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Myotis species recorded 37 minutes after sunset.	Soprano pipistrelle seen socialising between 19:59 and 20:04 as part of a feeding loop. Two Myotis bats seen flying up to tree near to the feature on the opposite side of the tree to perch on the tree trunk at 20:11. Flew north-east and south-west. No re-entry was seen. Similar behaviour shown by one single bat around possible feeding perch at 20:15. Serotines, common pipistrelles, and noctules heard throughout survey

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							until 21:22. Lots of social calls from soprano pipistrelle.
				13/09/17	Dawn 06:42	Pipistrellus sp. Recorded 36 minutes before dawn.	Pipistrellus sp. seen foraging in a circle and social calling over grassland between 2 to 5m above ground between 06:15 and 06:27; 27 and 15 minutes before sunrise. Other species seen but not heard social calling and foraging include common pipistrelle, myotis species, and soprano pipistrelle.
	F032	T13	Confirmed	11/09/17	Dusk 19:33	Soprano pipistrelle recorded 19 minutes after sunset. Noctule recorded 25 minutes after sunset. Brown long-eared recorded 31 minutes after sunset.	Soprano pipistrelle possible emergence from dead branch flying towards the south at 19:54. Possible noctule emergence from main trunk towards the south-west at 19:58. Brown long-eared potential emergence from trunk cavity on the west side. Difficult light conditions mean it is not confirmed. Flying west to east at 20:04. Soprano pipistrelle also seen circling nearby surveyors at 20:30. Serotine was the only other species recorded, and was heard until 21:28. Consistent calls recorded from common pipistrelle, noctule, brown long-eared and soprano pipistrelle.
				13/09/17	Dawn 06:42	Soprano pipistrelle recorded 18 minutes before dawn.	Soprano pipistrelle recorded from 04:53 until 05:14 for at least five passes. Noctule and serotine recorded from five passes at 06:22. At 06:20, potential serotine return to roost seen. Flying into woodpecker

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Serotine recorded 20 minutes before dawn. Noctule recorded 20 minutes before dawn.	hole situated 5m high on the east side. Soprano pipistrelle return to roost into the dead branch 4m high on south side at 06:20 also.
				14/09/17	Dusk 19:26	Soprano pipistrelle recorded 21 minutes after sunset. Common pipistrelle recorded 51 minutes after sunset.	Potential soprano pipistrelle emergence from the split limb on tree located on the west side 21 minutes after sunset. Another potential emergence from unknown big bat species. From woodpecker on the east side. Similar location to the re-entry seen on the 13/09/17 dawn survey. Serotine, noctule, soprano, myotis species and leisler's heard but not seen commuting and socialising until 21:23.
	F038	N/A	Moderate	17/07/17	Dusk 21:16	Noctule recorded 20 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Leisler's recorded 45 minutes after sunset. Myotis species recorded 51	At least five noctule passes from 20 minutes after sunset. Four passes of soprano pipistrelle throughout survey from 21:40, 22:58, 23:06, and 23:16. Common pipistrelle recorded intermittently throughout the survey for multiple passes from 21:46 with the final pass at 23:16. Myotis species, brown long-eared, serotine, and leisler's bat recorded intermittently throughout the survey,

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				23/08/17	Dawn 06:10	Common pipistrelle recorded 31 minutes before dawn. Soprano pipistrelle recorded 41 minutes before dawn.	Common pipistrelle recorded throughout the call. Intermittently from 04:15 until 04:40 for three passes. Continuously from 05:31 until 05:39. Soprano pipistrelle, serotine, and noctule recorded prior to common pipistrelles at 05:31.
	F039	N/A	Moderate	17/07/17	Dusk 21:17	Noctule recorded 19 after sunset. Soprano pipistrelle recorded 23 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Myotis species recorded 44 minutes after sunset.	Noctule heard between 21:36 and 21:40 initially, and then 22:43. Common pipistrelle recorded consistently from 21:46 until 23:16. Lots of social calls and seen flying towards the north-east and south-west. Possibly flew into F039 as sight was lost sight into the tree. Serotine, soprano pipistrelle, Nyctalus species, brown long-eared and myotis species were recorded intermittently.
				24/08/17	Dawn 06:11	Common pipistrelle recorded 36 minutes before dawn.	Two passes of common pipistrelle at 04:39, and another two passes at 05:32.
ST128002	F001	T4	High	13/07/17	Dawn 05:11	Soprano pipistrelle recorded 39 minutes before dawn. Common pipistrelle recorded 48	One pass of noctule at 03:16. Passes of soprano pipistrelle and common pipistrelle together from 03:18 and 04:32. One pass of myotis at 03:26 in between soprano and common pipistrelle.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				22/08/17	Dusk 20:19	Noctule recorded 22 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Brown long-eared recorded 40 minutes after sunset.	Noctule recorded for at least six passes from 20:41 and 20:43, with a single pass recorded at 21:23. Common pipistrelle was recorded consistently throughout survey from 20:51 to 22:06. At 20:51, common pipistrelle seen commuting south-west. In between this, serotine, soprano pipistrelle and two myotis passes were recorded.
				02/10/17	Dusk 18:47	Soprano pipistrelle recorded 18 minutes after sunset. Nyctalus species/serotine recorded 28 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Myotis species recorded 42	Soprano pipistrelle and myotis recorded consistently together from 19:05 until 20:25. Common pipistrelle seen foraging towards the south at 19:19. Recorded again at 19:43 but not seen. Brown long-eared recorded for one brief pass at 19:55.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
	F002	N/A	Moderate	19/07/17	Dawn 05:20	Soprano pipistrelle recorded 24 minutes before dawn. Common pipistrelle recorded 38 minutes before dawn.	Continuous foraging by common and soprano pipistrelle, myotis species, serotine and noctule. Began at 03:29 and ended 04:42, 38 minutes before sunrise. More passes from soprano pipistrelle than any other species.
				22/08/17	Dusk 20:19	Noctule recorded 18 minutes after sunset. Myotis species recorded 42 minutes after sunset. Leisler's recorded 45 minutes after sunset.	At least 13 noctule passes from 20:37 until 20:48. Noctule passes again at 22:12. Myotis pass at 21:01 following by Leisler's at 21:04. Soprano and common pipistrelle passes at same time as each other from 21:14 until 21:51. Predominantly soprano pipistrelle until end of survey. Serotine passes in between pipistrelle passes for 10 minutes from 21:25.
	F003	T5	Confirmed	22/08/17	Dusk 20:19	Soprano pipistrelle recorded 22 minutes after sunset.	Noctules and soprano pipistrelles were recorded commuting through the site within 30 minutes of sunset. Common and soprano pipistrelles and noctules were heard making frequent foraging passes throughout the rest of the survey.
				05/10/17	Dawn 07:12	Soprano pipistrelle recorded 62 minutes before dawn.	Single, brief soprano pipistrelle pass at 06:10, 62 minutes prior to sunset.
				11/10/17	Dawn 07:25	Soprano pipistrelle recorded 20	Common pipistrelle and noctules commuting within survey area.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes before dawn.	
				17/10/17	Dusk 18:13	Noctule recorded 9 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Brown long-eared recorded 52 minutes after sunset.	Two noctule passes at 18:22 and 19:08. Intermittent soprano pipistrelle passes at 18:38, followed by passes between 19:58 and 20:07. Serotine, brown long-eared, and common pipistrelle recorded for one pass each between 19:04 and 19:42.
				25/10/17	Dawn 07:52	Soprano pipistrelle recorded 23 minutes before dawn.	At least five soprano pipistrelle passes starting at 06:55 and ending at 07:29; 23 minutes before sunrise.
	F004	T6	Confirmed	30/05/17	Dusk 21:13	Soprano pipistrelle recorded 30 minutes after sunset Myotis species 31 minutes after sunset. Brown long-eared recorded 38 minutes after sunset.	Myotis and soprano pipistrelle predominantly recorded. Myotis emergence from the north growing branch of F004b 6m high between 22:06 and 22:12. Flew towards the east following emergence. Two soprano pipistrelles seen foraging continuously around tree at 22:15. Both myotis and soprano pipistrelle heard until 23:09, with occasional passes from serotine and leisler's.
				13/07/17	Dawn 05:11	Soprano pipistrelle recorded 56 minutes before dawn.	Continuous soprano pipistrelle passes from 03:17 until 04:15. Possible re-entry at 04:11. Had been continuously circling around F004d before all calls abruptly stopped.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				22/08/17	Dusk 20:17	Noctule recorded 20 minutes after sunset. Brown long-eared recorded 38 minutes after sunset.	Noctule, distant passes from 20:37 until 20:48. Brown long-eared seen emerging from feature between 20:55 and 21:03. Seen foraging once around F004 each time before flying north past surveyor. Intermittent commuting soprano and common pipistrelle, serotine and leisler's bat following brown long-eared emergence, until 22:10.
				28/09/17	Dawn 07:07	Serotine recorded 63 minutes before dawn.	Intermittent passes from serotine, myotis, soprano pipistrelle, noctule, and long eared species between 05:04 and 06:04.
	F007	T7	High	31/05/17	Dusk 21:16	Noctule recorded 59 minutes after sunset.	Noctule foraging at 22:15 and 22:34. Continuous common pipistrelle passes between 22:20 and 22:36. Seen foraging along the hedgerow within this time. Myotis species and serotine passes recorded between 22:40 and 22:42.
				22/08/17	Dusk 20:17	Noctule recorded 20 minutes after sunset. Myotis species recorded 44 minutes after sunset.	Noctule recorded consistently for at least 13 passes from 20:37 until 20:48. Two myotis passes at 21:01 followed by four serotine passes at 21:04. From 21:14 until 21:51, serotine, soprano pipistrelle and common pipistrelle passes were occurring at the same time. Soprano pipistrelle continuously passing from 21:51 until 22:12. Serotine within these calls. Noctule pass again at 22:12.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				05/10/17	Dawn 07:17	N/A	No bats seen or heard.
				19/10/17	Dawn 07:40	Pipistrellus sp. Recorded 90 minutes before dawn.	Single pipistrelle pass at 06:10, an hour and a half prior to sunrise.
	F009	T8	High	31/05/17	Dusk 21:15	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset.	Common and soprano pipistrelle passes heard together between 21:47 and 22:03. Same behaviour heard again between 22:16 until 22:46, and 22:51 until 23:11. One pass of brown long-eared at 22:06 and 22:51. Consistent noctule passes from 22:11 until 22:14. Serotine passes heard intermittently at 22:16 and 22:47.
				23/08/17	Dawn 06:10	Noctule recorded 15 minutes before dawn.	Three passes of soprano pipistrelle recorded at 04:18, 04:47, and 04:49. Leisler's, noctule, and serotine recorded between 04:20 and 05:55. One pass of brown long-eared at 04:35.
				18/10/17	Dusk 18:11	Noctule recorded 1 minute after sunset. Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset.	Noctule recorded at similar time as survey night before close by. Potentially roosting within woodland. Lesser horseshoe recorded 128 minutes after sunset. Soprano pipistrelle heard consistently between 18:40 and 18:43. Common pipistrelle immediately between 18:44 and 18:54.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Leisler's recorded 47 minutes after sunset.	
	F013	N/A	Moderate	13/07/17	Dusk 21:20	Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 43 minutes after sunset. Noctule recorded 52 minutes after sunset. Myotis species recorded 80 minutes after sunset.	Two common pipistrelles seen foraging in a west-north-south direction of feeding loop approximately 15m above ground level. Similar behaviour seen at 21:56 3 minutes later but flying just north to south, and 3m above ground, and at 22:28. Leisler's, noctule, and myotis heard intermittently between 22:39 until 23:17.
				18/10/17	Dusk 18:11	Soprano pipistrelle recorded 37 minutes after sunset.	Only bat heard was a brief soprano pipistrelle pass.
WS75059	F003	N/A	Moderate	26/05/17	Dawn 05:08	Noctule recorded 33 minutes before dawn.	Single soprano pipistrelle pass recorded at 03:24. Common pipistrelle heard consistently between 03:27 and 04:03. Similarly, between 04:13 and 04:19. Noctules seen commuting towards the west at 04:06 and 04:35.
				01/08/17	Dusk 20:56	Common pipistrelle recorded 47	Common pipistrelle recorded consistently from 21:43 until 22:08 and then intermittently until 22:55.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	Seen foraging towards the west between 21:57 and 22:05 within a feeding loop along line of trees 5m above ground level. Myotis species seen at similar time, commuting south-east. Serotine, noctule and leisler's recorded between 21:51 and 22:49
	F008	T26	Confirmed	25/05/17	Dusk 21:08	Common pipistrelle recorded 38 minutes after sunset. Soprano pipistrelle recorded 42 minutes after sunset. Noctule recorded 52 minutes after sunset.	Common pipistrelle seen commuting from west to east. Possible emergence from tree to west of F008. 21:56 and 21:59. Bats fluttering through treeline at 1m height but no echolocation so no recording. Suspected noctules due to very quiet distorted calls 1 min prior to sighting. Noctule, soprano pipistrelle, and serotine seen commuting west to east at low height between 22:00 and 22:06.
				13/07/17	Dawn 05:11	Myotis sp. Recorded 50 minutes before dawn.	Continuous myotis passes from 03:13 until 04:21. Seen foraging west flying close to tree at 03:31. Return to roost seen four times between 03:42, and 04:08. Up to 38 bats returning at one point. Entering top of trunk cavity. Intermittent common pipistrelle, noctule and serotine calls in between myotis returns.
				01/08/17	Dusk 20:56	Soprano pipistrelle recorded 35 minutes after sunset.	Soprano pipistrelle seen foraging towards the east 57 minutes after sunset. Five minutes later, common pipistrelle seen foraging in a circle from east to west and west again.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Myotis species recorded 54 minutes after sunset.	
	F010	N/A	Moderate	07/06/17	Dawn 04:57	Soprano pipistrelle recorded 47 minutes before dawn. Common pipistrelle recorded 57 minutes before dawn.	Consistent myotis passes from 03:02 for 12 minutes. Soprano and common pipistrelle recorded intermittently together from 03:17 until 04:10.
				13/07/17	Dawn 05:11	Leisler's bat recorded 53 minutes before dawn. Myotis sp. Recorded 53 minutes before dawn.	Myotis species seen foraging between 03:25 and 03:43. Feeding loop for four minutes around line of trees, 3m above ground level. Same behaviour five minutes later. Multiple bats seen swarming around F008 (where bats were seen re-entering) but no re-entry into F010. At 04:15, one myotis seen circling around line of trees where it may have re-entered F008.
				01/08/17	Dusk 20:56	Soprano pipistrelle recorded 35 minutes after sunset.	A single soprano pipistrelle seen commuting north along the hedge 35 minutes after sunset. Seen commuting north-east approximately 20 minutes later, flying between the trees then over the field in front of surveyors. Soprano and common pipistrelle passing intermittently from 21:31 until 22:05. Noctule and serotine calls between 22:19 until 22:43.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
WS31054	F001	T24	High	26/06/17	Dusk 21:27	Noctule recorded 7 minutes after sunset. Brown long-eared recorded 53 minutes after sunset. Myotis species recorded 77 minutes after sunset.	Constant brown long-eared foraging for 6 minutes circling east and west. Same behaviour at 22:24. Brief feeding call from common pipistrelle seen flying south. Brown long-eared seen foraging west briefly 4 minutes later. Serotine seen foraging east for three minutes at 22:37. Foraging from these species heard until 23:22.
				03/08/17	Dusk 20:53	N/A	No bats seen or heard
				17/10/17	Dawn 07:37	N/A	No bats seen or heard
ST97976	F004	T2	High	05/07/17	Dawn 05:03	Common pipistrelle recorded 55 minutes before dawn. Soprano pipistrelle recorded 51 minutes before dawn.	Soprano pipistrelle and myotis species recorded continuously from 03:06 until 03:39. Common pipistrelle first heard at 03:36 and continued until 04:08. Brief noctule call at 03:49. Common pipistrelle bats seen foraging north over grassland along woodland edge for 6 minutes at 03:46. Foraging south-west at 04:08.
				03/08/17	Dusk 20:53	Pipistrellus sp. recorded 31 minutes after sunset. Common pipistrelle recorded 38 minutes after sunset. Noctule recorded 43 minutes after sunset.	Pipistrellus seen foraging near F004 at 21:24, and common pipistrelle foraging north at 21:31. Pipistrellus sp. seen 21 minutes later foraging south. Both species foraging intermittently until end of survey. Single noctule pass at 21:36 heard commuting

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				23/10/17	Dusk 18:01	All bats recorded after their usual emergence time	Serotine passes from 19:28 until 19:35. Multiple passes. Likely surveyors were sitting near the edge of a single bat's foraging loop as most calls were quiet but at regular intervals of 1 minute apart from 19:35 until 19:52. Faint long-eared bat call at 19:31, and common pipistrelle pass at 19:50.
WS16934	F001	N/A	Moderate	05/07/17	Dusk 21:26	All bats recorded after their usual emergence time	Common pipistrelles recorded foraging between 22:27 and 22:41. Heard within trees, looked like bat emerged from a branch at top of the tree. Noctule commuting pass at 23:07.
				01/08/17	Dawn 05:36	Common pipistrelle recorded 66 minutes before dawn.	Serotine heard commuting then foraging from 03:36 until 03:46.
	F002	T18	High	05/07/17	Dusk 21:27	N/A	Brief serotine passes from 22:27 until 22:36. Intermittent soprano and common pipistrelle foraging from 22:42 until 23:18.
				31/07/17	Dusk 21:04	Common pipistrelle recorded 49 minutes after sunset. Noctule recorded 70 minutes after sunset.	Constant common pipistrelle passes and feeding buzz from 21:53 until 22:58. Two noctule foraging passes at 22:16.
				30/08/17	Dawn 06:20	Soprano pipistrelle recorded 84	Single soprano pipistrelle pass recorded at 04:55.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes before dawn.	
	F003	T19	High	05/07/17	Dusk 21:28	All bats recorded after their usual emergence time	Noctule recorded at 23:07, 91 minutes after sunset.
				30/08/17	Dawn 06:20	N/A	No bats seen or heard. Confirmed in analysis.
				23/10/17	Dusk 18:01	Noctule recorded 56 minutes after sunset. Common pipistrelle recorded 74 minutes after sunset.	Constant noctule commuting calls from 18:56 until 19:37. Single common pipistrelle pass at 19:13 and leisler's bat passes from 19:28 for four minutes.
WS75681	F001	T27	High	06/07/17	Dusk 21:27	NA	No bats recorded for the first hour of survey. From 22:07 until the end of the survey common pipistrelles were recorded making frequent foraging passes.
				22/08/17	Dawn 06:08	Common pipistrelle recorded 36 minutes before dawn.	No bats seen but common pipistrelle, leisler's, and soprano pipistrelle recorded commuting from 04:20 until 05:31.
				18/10/17	Dusk 18:11	Common pipistrelle recorded 30 minutes after sunset.	Common pipistrelle heard commuting half an hour after sunset.
	F002	T28	High	06/07/17	Dusk 21:26	Common pipistrelle recorded19 minutes after sunset. Soprano pipistrelle recorded 31	Intermittent common and soprano pipistrelle bats recorded foraging within area until 22:00. Single leisler's pass a 23:21.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				21/08/17	Dusk 20:20	Noctule recorded 10 minutes before sunset. Common pipistrelle recorded 19 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Myotis species recorded 46 minutes after sunset.	Continuous foraging of noctule, serotine, common and soprano pipistrelle, and myotis from 20:10 until 22:14.
				13/09/17	Dawn 06:42	Common pipistrelle recorded 19 minutes before dawn.	Soprano pipistrelle heard foraging 1 hour before sunrise. Myotis species, nyctalus species, and common pipistrelle brief passes heard.
	F005	T29	High	12/07/17	Dusk 21:22	Common pipistrelle recorded 17 minutes after sunset. Pipistrelles species recorded 21 minutes after sunset. Serotine recorded 23 minutes after sunset. Soprano pipistrelle recorded 30	One soprano pipistrelle seen commuting south 53 minutes after sunset. Continuous commuting and foraging by soprano and common pipistrelle heard throughout survey. Occasional passes by serotine at 21:45 and 22:02.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				21/08/17	Dusk 20:19	Common pipistrelle recorded 28 minutes after sunset. Serotine recorded 29 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset.	Serotine seen foraging east, 5m above ground level 45 minutes after sunset. Myotis seen twice foraging west between 21:10 and 21:16. Mixture of common and soprano pipistrelle, serotine, myotis, noctule, and leisler's bats heard continuously.
				13/09/17	Dawn 06:44	Soprano pipistrelle recorded 56 minutes before dawn.	Common pipistrelle heard foraging, commuting, and socialising from 04:55 until 05:28. Three minutes of continuous soprano pipistrelle foraging an hour before sunrise at 05:44.
	F006	T30	High	12/07/17	Dusk 21:21	Common pipistrelle recorded 15 minutes after sunset. Pipistrellus sp. recorded 19 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Myotis species recorded 49	Common pipistrelle seen foraging for two passes 5m above ground level, 42 minutes after sunset. Soprano pipistrelle heard during part of feeding loop at 22:06, and 22:32. Serotine and myotis brief passes at 22:02 and 22:10.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				21/08/17	Dusk 20:19	Serotine recorded 2 minutes before sunset. Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Noctule recorded 43 minutes after sunset.	Serotine flying west to east at 20:53 for one minute and 21:01 for one minute. Lesser horseshoe recorded for one pass at 22:16. Soprano and common pipistrelle, noctule, brown long-eared, leisler's bat and myotis sp. heard intermittently throughout survey.
				13/09/17	Dawn 06:44	Soprano pipistrelle recorded 56 minutes before dawn.	Five faint common and soprano pipistrelle calls heard between 04:50 and 05:47.
	F007	T31	High	06/07/17	Dawn 05:04	Noctule recorded 27 minutes before dawn.	Single soprano pipistrelle pass at 03:24 and noctule commuting pass 27 minutes before sunrise.
				21/08/17	Dusk 20:19	Soprano pipistrelle recorded 1 minute after sunset. Common pipistrelle recorded 20 minutes after sunset. Serotine recorded 30 minutes after sunset.	Myotis species seen foraging in an orchard 54 minutes after sunset. Foraging common pipistrelle, soprano pipistrelle, and serotine heard from 20:20 until 21:01. Continuous passes of soprano and common pipistrelle, leisler's, serotine, and noctule until 22:18.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Myotis species recorded 46 minutes after sunset.	
				12/09/17	Dusk 19:31	N/A	No bats heard or seen.
				19/10/17	Dawn 07:40	Soprano pipistrelle recorded 60 minutes before dawn. Lesser horseshoe bat recorded 70 minutes before dawn.	Lesser horseshoe, Pipistrellus sp., and soprano pipistrelle heard for single pass each between 06:30 and 06:40.
	F008	T32	High	06/07/17	Dawn 05:04	Noctule recorded 27 minutes before dawn. Common pipistrelle recorded 30 minutes before dawn.	Seven minutes of continuous Nyctalus species calls at 03:19 followed by two leisler's passes 20 minutes later. Single lesser horseshoe pass 52 minutes before sunrise. One soprano pipistrelle pass followed by five minutes of common pipistrelle passes at 04:29. Final call from noctule at 04:37.
				21/08/17	Dusk 20:18	Soprano pipistrelle recorded 2 minutes after sunset. Pipistrellus sp. recorded 17 minutes after sunset. Common pipistrelle recorded 21 minutes after sunset.	Common and soprano pipistrelle foraging from 20:20 until 20:58. Myotis species and brown long-eared foraging briefly between 21:01 and 21:18. Big bats; serotine, noctule, and leisler's heard repeatedly from 21:20 until 22:15. Single, distant lesser horseshoe pass at 22:14.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Myotis species recorded 27 minutes after sunset. Brown long-eared recorded 50 minutes after sunset.	
				12/09/17	Dusk 19:31	Common pipistrelle recorded 10 minutes after sunset.	Two common pipistrelle passes at 19:41.
				19/10/17	Dawn 07:40	Soprano pipistrelle recorded 46 minutes before dawn. Lesser horseshoe bat recorded 68 minutes before sunset.	Lesser horseshoe pass 68 minutes prior to sunrise. Two soprano pipistrelle passes heard between 06:52 and 06:54.
	F009	T33	High	21/08/17	Dusk 20:19	Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset. Noctule recorded 28 minutes after sunset. Myotis species recorded 47	Common and soprano pipistrelle, and serotine heard continuously throughout survey with intermittent noctule, leisler's and myotis species calls within this. Activity heard from 20:44 until 22:21.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				12/09/17	Dusk 19:31	N/A	No bats seen or heard. Less than optimal weather conditions.
				14/09/17	Dawn 06:44	N/A	No bats seen or heard.
				18/10/17	Dawn 07:38	Soprano pipistrelle recorded 32 minutes before dawn. Common pipistrelle recorded 38 minutes before dawn.	Multiple passes of soprano and common pipistrelle, foraging between 06:23 and 07:06.
	F011	T34	High	06/07/17	Dusk 21:26	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 52 minutes after sunset. Myotis species recorded 52 minutes after sunset.	Common pipistrelle constantly foraging and commuting from 21:58 until 22:09 and then 22:18 until 23:14 for at least 12 passes. Intermittent myotis species and soprano pipistrelle between 22:18 and 22:24.
				22/08/17	Dawn 06:08	Noctule recorded 98 minutes before dawn.	Commuting serotine passes between 04:39 until 04:40 and single commuting noctule pass at 04:40.
				24/10/17	Dusk 17:59	Serotine recorded 44 minutes after sunset. Myotis species recorded 74	Serotine and Nyctalus species passes 44 minutes after sunset. Two myotis passes at 19:12.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
U00029-43	F017	T16	High	18/07/17	Dusk 21:15	Soprano pipistrelle recorded 5 minutes after sunset. Common pipistrelle recorded 15 minutes after sunset. Myotis species recorded 20 minutes after sunset. Brown long-eared recorded 31 minutes after sunset.	Soprano pipistrelle seen foraging north to south along adjacent track between 21:24 and 21:34. Continuous common pipistrelle foraging from 21:37 until 21:56, seen foraging along the track. Mixture of brown long-eared, leisler's, serotine, myotis, and common pipistrelle from 22:00 until 23:14.
				25/07/17	Dusk 21:08	Common pipistrelle recorded 12 minutes after sunset. Noctule recorded 19 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset. Pipistrellus sp. recorded 20 minutes after sunset. Myotis species recorded 23	Constant common pipistrelle calls 12 minutes after sunset and with soprano pipistrelle 21:27 until 21:47. Myotis species and serotine passes in between. Continuous myotis passes from 21:47 until 22:27. At least six passes of common and soprano pipistrelle 22:49 for 15 minutes.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset.	
				26/07/17	Dawn 05:27	Serotine recorded 7 minutes before dawn. Common pipistrelle recorded 19 minutes before dawn.	Continuous common pipistrelle passes from 03:26 until 20 minutes before sunrise. Single noctule pass at 03:31, seven minutes of soprano pipistrelle passes from 03:50, and myotis passes at 04:07 within the common pipistrelle calls.
				09/08/17	Dawn 05:48	Leisler's bat recorded 95 minutes before dawn.	Two passes of leisler's between 04:08 and 04:13.
	F018	N/A	Confirmed	04/07/17	Dusk 21:28	Soprano pipistrelle recorded 15 minutes before sunset. Myotis species recorded 23 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Soprano pipistrelle seen foraging north 20 minutes after sunset. Continuous myotis species passes from 21:51 until 23:21. Within that, intermittent common pipistrelle passes.
				25/07/17	Dusk 21:08	Common pipistrelle recorded 14 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset.	One soprano pipistrelle and common pipistrelle foraging north between 21:33 and 21:37. Three myotis individuals foraging east to west continuously from 21:37 until 22:30. Intermittent common pipistrelle, soprano pipistrelle and leisler's passes from 22:36 until 23:06.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Myotis species recorded 22 minutes after sunset. Noctule recorded 53 minutes after sunset.	
				26/07/17	Dawn 05:27	Soprano pipistrelle recorded 13 minutes after dawn. Serotine recorded 7 minutes before dawn. Common pipistrelle recorded 19 minutes before dawn.	One soprano pipistrelle seen flying 10m high in canopy just south of F018 but no re-entry was seen. Constant common and soprano pipistrelle calls, and intermittent myotis species calls before and after the sighting.
				10/08/17	Dawn 05:49	Common pipistrelle recorded 43 minutes before dawn. Soprano pipistrelle recorded 46 minutes before dawn.	Common pipistrelle seen foraging high in canopy, then diving in front of surveyor and off to the south 50 minutes before sunrise. Myotis species, common pipistrelle, serotine, and soprano pipistrelle heard between 04:09 and 05:03.
	F019	T17	High	05/07/17	Dawn 05:03	Soprano pipistrelle recorded 4 minutes before dawn.	Common pipistrelle continuously foraging from 03:06 for 10 minutes and intermittently until 04:06. Brief myotis species and soprano pipistrelle passes in between common pipistrelle foraging.
				26/07/17	Dusk 21:06	Soprano pipistrelle recorded 24	Soprano pipistrelle seen flying south-west 13 minutes before sunset and

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes before sunset. Pipistrellus sp. recorded 13 minutes after sunset. Common pipistrelle recorded 14 minutes after sunset. Brown long-eared recorded 28 minutes after sunset.	foraging 15 minutes after sunset. Common pipistrelle foraging from 21:20 until 21:40. Single brown long-eared pass at 22:11. Soprano pipistrelle and serotine passes heard for 15 minutes from 22:27.
				27/07/17	Dawn 05:26	Soprano pipistrelle recorded 12 minutes after dawn. Serotine recorded 13 minutes before dawn. Myotis sp. Recorded 26 minutes before dawn.	Soprano pipistrelle foraging continuously from 04:20 until 05:38 including an individual foraging in the canopy from 05:15 until 05:26. Other species heard for brief passes include myotis species, serotine, common pipistrelle, and noctule from 03:30 until 05:13.
				08/08/17	Dusk 20:46	Soprano pipistrelle recorded at sunset. Lesser horseshoe recorded 32 minutes after sunset. Brown long-eared recorded 34	Faint soprano pipistrelle foraging calls from 20:46 until 21:06. Single lesser horseshoe heard call 32 minutes after sunset. Brown long-eared between 21:20 and 21:28. Noctule foraging continuously from 22:15 until 22:39. A final, brief pass

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						minutes after sunset. Common pipistrelle recorded 36 minutes after sunset. Myotis species recorded 48 minutes after sunset.	of myotis species two hours after sunset.
WS26353	F002	T20	Confirmed	10/07/17	Dusk 21:23	Common pipistrelle recorded 29 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Serotine recorded 41 minutes after sunset. Myotis recorded 59 minutes after sunset.	Continuous common and soprano pipistrelle calls until two hours after sunset including a common pipistrelle emergence from F002 flying north 29 minutes after sunset; and foraging seven minutes later and soprano pipistrelle commuting north between 22:13 and 22:21. Myotis species recorded intermittently from 59 minutes after sunset, for 25 minutes.
				23/08/17	Dawn 06:10	Common pipistrelle recorded 30 minutes before dawn.	Soprano pipistrelle, common pipistrelle, noctule, leisler's heard repeatedly from 04:13 until half an hour prior to sunrise. Myotis passes heard only at 05:23.
				27/09/17	Dusk 18:56	Soprano pipistrelle recorded 11 minutes after sunset.	Continuous common and soprano pipistrelle recorded until an hour and a half after sunset including a soprano pipistrelle foraging in

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Common pipistrelle recorded 24 minutes after sunset.	circular directions for 10 minutes at 19:07 and for 50 minutes at 19:24. Two serotine passes at 20:51.
	F003	T21	High	10/07/17	Dusk 21:23	Common pipistrelle recorded 31 minutes after sunset. Myotis species recorded 71 minutes after sunset.	Common pipistrelle recorded continuously commuting from 21:52 for one hour. Single soprano pipistrelle pass at 23:14.
				23/08/17	Dusk 20:15	Soprano pipistrelle recorded 28 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Serotine recorded 41 minutes after sunset. Myotis species recorded 48 minutes after sunset.	Common and soprano pipistrelle recorded together continuously 28 minutes after sunset for four minutes. Soprano pipistrelle heard intermittently until two hours after sunset. Serotine foraging 41 minutes after sunset and intermittently at 21:22 and 21:47. Leisler's bat heard for four passes for twenty minutes from 21:54.
				05/10/17	Dawn 07:14	Noctule recorded 37 minutes before dawn.	Continuous noctule and common pipistrelle foraging together from 05:16 for 20 minutes. Common pipistrelle heard only from 05:36 for 25 minutes, followed by continuous noctule recording from 06:03 for 30 minutes.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				19/10/17	Dawn 07:40	N/A	No bats seen or heard.
	F004	T22	High	10/07/17	Dusk 21:23	Pipistrellus sp. recorded 22 minutes before sunset. Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle and Myotis species recorded 51 minutes after sunset.	Soprano pipistrelle seen foraging south west, 2m above ground level within woodland 51 minutes after sunset. Faint calls at 22:26, and continuous calls heard for 13 minutes from 23:10. Common pipistrelle heard foraging 35 minutes after sunset and at 22:39. Single myotis pass 51 minutes after sunset only.
				23/08/17	Dusk 20:15	Soprano pipistrelle recorded 27 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Leisler's recorded 41 minutes after sunset. Myotis species recorded 48 minutes after sunset.	Brown long-eared bat seen commuting north-west to south-west over surveyors at 21:52. Soprano pipistrelle heard continuously from 21:21 until 22:12. Few common pipistrelle passes 29 minutes after sunset and intermittently from 22:02 for nine minutes. Serotine passes at 21:08, and one hour later.
				05/10/17	Dawn 07:14	Noctule recorded 37 minutes before dawn.	Noctule and common pipistrelle continuously foraging together from 05:16 for 20 minutes. Only common pipistrelle from 05:36 for 25 minutes,

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							followed by continuous noctule from 06:03 for 30 minutes.
				19/10/17	Dawn 07:40	N/A	No bats seen or heard.
	F007	T23	High	11/07/17	Dawn 05:09	Noctule recorded 99 minutes before dawn.	Single pass of myotis species at 03:12, and soprano pipistrelle and noctule at 03:40.
				08/08/17	Dusk 20:46	Common pipistrelle recorded 20 minutes after sunset. Leisler's recorded 22 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Common pipistrelle foraging from 21:06 until 21:36 and heard for another hour. Noctule and leisler's heard within common pipistrelle calls for ten minutes from 21:36.
				24/10/17	Dusk 17:59	Noctule recorded 13 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset. Pipistrellus sp. recorded 37 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset.	Noctules commuting 13 minutes after sunset and 30 minutes later. Brief, intermittent common and soprano pipistrelle calls from 18:24 until 19:11. Single leisler's pass 70 minutes after sunset.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
WS46264	F001	T44	Moderate	10/07/17	Dusk 21:23	Noctule recorded 16 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset. Soprano pipistrelle recorded 45 minutes after sunset. Brown long-eared bat recorded 58 minutes after sunset.	Common pipistrelle seen foraging around north-west of tree for two minutes at 21:51. Seen 20 minutes later circling above surveyors. Repeatedly foraging from 22:49 for 20 minutes. Intermittent noctule and soprano pipistrelle calls until two hours after sunset.
				03/08/17	Dawn 05:39	Soprano pipistrelle recorded 67 minutes before dawn.	No bats seen or heard.
				24/10/17	Dusk 17:59	Serotine recorded 57 minutes after sunset. Noctule recorded 64 minutes after sunset.	Bat activity heard from 18:56 for seven minutes. Firstly, two serotine passes, and then one faint noctule call at 19:03. All bats thought to be commuting.
ST106737	F002	T35	Moderate	24/08/17	Dawn 06:11	Common pipistrelle recorded 43 minutes before dawn.	Few passes of commuting common pipistrelle and Pipistrellus sp.
				29/08/17	Dusk 20:04	Soprano pipistrelle recorded 30 minutes after sunset.	Soprano pipistrelle commuting continuously for 30 minutes. Single common pipistrelle pass over an hour after sunset. Continuous

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Nyctalus species recorded 46 minutes after sunset. Myotis species recorded 83 minutes after sunset.	passes by myotis species from 21:27 for 20 minutes.
WS1856	F003	T42	Moderate	19/07/17	Dawn 05:18	Soprano pipistrelle recorded 2 minutes before dawn. Common pipistrelle recorded 18 minutes before dawn.	Common pipistrelle seen landing in F003 as a possible re-entry 45 minutes prior to dawn. At least three soprano pipistrelle bats seen flying around feature tree from 04:59 until 05:05. Possibly same single soprano pipistrelle seen flying around feature tree and another large tree with obvious Y in trunk 12m high on the north side until 05:16. In between common and soprano pipistrelle calls, at least six myotis calls for one minute at 03:29.
				30/08/17	Dusk 20:00	Common pipistrelle recorded 21 minutes after sunset. Brown long-eared recorded 32 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset.	Common pipistrelle seen emerging from tree nearby 21 minutes after sunset before flying north-west. Recorded continuously and seen foraging, commuting, and socialising between north and north-east from 20:24 until 21:52. Intermittent soprano, serotine, brown long-eared, noctule, and leisler's for five minutes until 20:40. Myotis species heard 84 minutes after sunset only.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Myotis species recorded 84 minutes after sunset.	
U00010	F001	T14	High	18/07/17	Dawn 05:12	Common pipistrelle recorded 63 minutes before dawn.	Common pipistrelle commuting and foraging within survey area for a few passes from 03:40 for approximately 20 minutes. Pipistrellus sp. foraging intermittently for four minutes at 04:05.
				30/08/17	Dusk 19:59	Common pipistrelle recorded 31 minutes after sunset. Pipistrellus sp. recorded 46 minutes after sunset. Soprano pipistrelle recorded 56 minutes after sunset. Noctule recorded 73 minutes after sunset.	Mixture of common and soprano pipistrelles, serotine, noctule, and leisler's heard commuting or foraging for single passes from 20:30 until 21:19. Serotine was seen foraging towards the west 48 minutes after sunset.
				18/10/17	Dusk 18:11	Long-eared species recorded 50 minutes after sunset.	Long-eared species heard commuting for two passes between 19:00 and 19:16. Single serotine call over an hour after sunset.
ST103525	F001	T3	High	11/07/17	Dawn 05:08	Common pipistrelle recorded 7 minutes before dawn.	Common pipistrelle was the dominant species; foraging continuously two hours prior to sunrise. Individual seen flying 5m over hard standing ground next to

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
							woodland edge for 20 minutes from 03:52. Single leisler's pass at 03:41 as the only other bat species recorded within the survey area.
				29/08/17	Dusk 20:02	Common pipistrelle recorded 17 minutes after sunset. Myotis species recorded 18 minutes after sunset. Serotine recorded 18 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset.	Common pipistrelle heard commuting and foraging continuously from until two hours after sunset. Serotine, myotis, and soprano pipistrelle were heard commuting and foraging intermittently in between periods of common pipistrelle passes.
				18/10/17	Dusk 18:12	Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 51 minutes after sunset.	Continuous common pipistrelle passes after sunset for 10 minutes. Single soprano pipistrelle pass 45 minutes after sunset. Noctule pass 80 minutes after sunset.
U00024	F005	T15	High	25/09/17	Dusk 19:01	Serotine recorded 26 minutes after sunset. Myotis species recorded 55 minutes after sunset.	Serotine was the predominant species heard foraging 26 minutes after sunset until 20:34. Myotis species foraging for 25 minutes from 55 minutes after sunset.

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
				23/10/17	Dusk 18:01	Pipistrellus sp. recorded 43 minutes after sunset.	Serotine was the dominant species heard foraging and commuting 47 minutes after sunset for one hour. Pipistrellus sp. commuting 45 minutes after sunset and myotis two hours after sunset were the only other species recorded.
				25/10/17	Dawn 07:50	N/A	No bats seen or heard.
WS57193	F001	T25	High	05/10/17	Dawn 07:17	Common pipistrelle recorded 44 minutes before dawn. Myotis sp. recorded 59 minutes before dawn.	Common pipistrelle recorded from 05:28 for just over one hour. Occasional passes by Pipistrellus sp. and myotis species in between common pipistrelle recordings.
				16/10/17	Dusk 18:15	Noctule recorded 32 minutes after sunset.	Noctule and Nyctalus species commuting 32 minutes after sunset for eight minutes.
				24/10/17	Dawn 07:48	Pipistrellus sp. Recorded 28 minutes before dawn. Common pipistrelle recorded 28 minutes before dawn.	Two socialising common pipistrelle bats seen flying from the south of F001 towards the east. Heard foraging continuously before and after this sighting. Commuting soprano pipistrelle heard first at 06:22.
				25/10/17	Dusk 17:57	Noctule recorded 19 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset.	Mainly common pipistrelle and serotine bats heard commuting and foraging within survey area. Intermittent passes of leisler's and Nyctalus species amongst predominant common pipistrelle. Single lesser horseshoe pass

Land parcel	Feature number	Tree number	Roosting potential	Date	Survey type and time	First recorded activity after dusk/last recorded activity before dawn	Description of activity
						Lesser horseshoe recorded 33 minutes after sunset.	recorded 33 minutes after sunset only.

Buildings

Table F.8: Summary of survey conditions of buildings subject to emergence and re-entry in 2017

Land parcel reference no.	Feature number	Building number	Survey type	Sunrise/Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
WS64408	F001	B8	Dusk	19:15	19/09/17	18:45	21:15	18 to 16	0	6	Dry, clear
			Dusk	18:40	05/10/17	18:10	20:40	10	2	1	Dry, clear
			Dawn	07:25	10/10/17	05:25	07:40	13	1	8	Dry
WS33009	F001	N/A	Dawn	05:38	16/08/17	03:58	06:13	14	1	0	Dry, slight wind
			Dusk	19:42	07/09/17	19:12	22:42	16	2	8	Light rain
WS24574	F001	B32	Dusk	19:29	13/09/17	18:59	21:29	15 to 10	2	2	Dry, calm
			Dawn	07:18	04/10/17	05:15	07:30	12	0	8	Dry, calm
			Dawn	07:52	26/10/17	05:52	08:05	14	2	8	Light rain at start only
U00016	F001	B29	Dusk	19:29	13/09/17	18:59	21:29	15	3	1	Light rain for 20 mins half way through
			Dawn	07:17	03/10/17	05:17	07:32	9	1	0	Dry, cold
			Dusk	17:57	25/10/17	17:27	19:27	12	0	2	Dry, calm
WS42423	F002	B15	Dusk	19:00	25/09/17	18:30	21:00	18	2	7	Dry
			Dawn	07:15	04/10/17	05:15	07:30	10	2	7	Dry, breezy
			Dusk	18:16	16/10/17	17:46	20:16	14	6	8	Dry, overcast

Land parcel reference no.	Feature number	Building number	Survey type	Sunrise/Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
	F001	B16	Dusk	19:29	13/09/17	18:59	21:29	14	3	2	Rain for 25 minutes
			Dawn	07:15	04/10/17	05:15	07:30	9	2	5	Dry, cool
			Dusk	18:15	16/10/17	17:45	20:15	15	5	1	Dry
			Dawn	07:40	19/10/17	05:39	07:55	12	1	8	Dry
WS42422	F001	B14	Dusk	19:26	14/09/17	18:56	21:26	12	2	6	Dry
			Dawn	07:27	11/10/17	05:27	07:42	14	4	8	Dry, windy
			Dusk	18:15	16/10/17	17:45	20:15	15	8	1	Dry, windy
WS48619	F001	B33	Dusk	20:13	24/08/17	19:43	22:13	20	1	8	Dry, calm
			Dawn	06:44	14/09/17	04:44	06:59	9	1	8	Dry, rain before survey
ST128002	F002	B26	Dusk	20:44	09/08/17	20:14	22:44	16	3	7	Dry, rain during day
			Dawn	06:21	30/08/17	04:21	06:36	13	2	0	Dry, cold
			Dawn	06:44	14/09/17	04:44	06:59	11	0	8	Dry, calm
ST125075	F001	B4	Dawn	05:37	02/08/17	03:37	05:52	16	0	8	Dry, calm. Light intermittent rain
			Dusk	18:43	04/10/17	18:13	20:43	14	3	7	Dry, windy
			Dusk	18:31	09/10/17	18:01	20:31	15	1	2	Dry, clear
			Dawn	07:38	18/10/17	05:44	07:53	10	1	8	Dry, cool
WS57193	F001	B17	Dawn	06:55	21/09/17	04:56	07:10	14	2	8	Light rain
			Dusk	18:45	03/10/17	18:15	20:45	15	1	2	Dry, calm
			Dawn	07:29	12/10/17	05:29	07:44	11	1	0	Dry, clear
			Dusk	18:13	17/10/17	17:43	20:13	11	0	8	Light rain
	F002	B34	Dawn	06:55	21/09/17	04:56	07:10	14	2	8	Light rain
			Dawn	07:29	12/10/17	05:29	07:44	10	1	0	Dry
			Dusk	18:23	12/10/17	17:53	20:23	15	1	1	Dry
			Dusk	17:57	25/10/17	17:27	19:57	17 to 14	1	6	Dry
	F003	B18	Dusk	18:59	26/09/17	18:29	20:59	17 to 14	1	4	Dry, calm
			Dawn	07:15	04/10/17	05:15	07:30	10	1	6	Dry, cool
			Dusk	18:25	12/10/17	17:55	20:25	14	1	6	Dry, clear

Land parcel reference no.	Feature number	Building number	Survey type	Sunrise/Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
WS25151	F001	B13	Dusk	20:34	14/08/17	20:04	22:30	19	1	3	Dry, rain before survey
			Dawn	07:06	28/09/17	05:06	07:21	16 to 11	0	0	Dry, cold
			Dusk	18:45	03/10/17	18:15	20:45	13	1	4	Dry, cold
WS75681	F001	B9	Dawn	06:30	05/09/17	04:30	06:45	14	2	8	Light drizzle
			Dawn	07:28	11/10/17	05:28	07:43	14	2	8	Dry, cool
	F002	B19	Dawn	06:33	07/09/17	04:33	06:48	13	1	4	Dry, calm
			Dusk	18:13	17/10/17	17:43	20:13	13	1	7	Light drizzle
	F003	B20	Dusk	20:29	17/08/17	19:59	22:29	17	4	2	Dry, warm
			Dawn	06:30	05/09/17	04:30	06:45	16	1	7	Light drizzle
			Dusk	18:15	16/10/17	17:45	20:15	13	4	1	Dry, mild, windy
	F004	B21	Dawn	06:34	07/09/17	04:30	06:48	15	1	7	Dry
			Dusk	18:43	04/10/17	18:13	20:43	14	0	0	Dry, calm
			Dusk	18:13	17/10/17	17:43	20:13	16	1	8	Light drizzle
	F005	B10	Dawn	06:31	06/09/17	04:31	06:46	12	3	3	Dry, windy
			Dusk	18:54	28/09/17	18:24	20:54	18	1	1	Dry, clear
			Dusk	18:26	11/10/17	17:56	20:26	17	3	8	Light rain at start
ST84283	F001	B2	Dawn	05:35	01/08/17	03:30	05:50	14	0	0	Dry
			Dusk	19:01	26/09/17	18:45	21:01	18	1	7	Dry, clear
			Dusk	18:28	10/10/17	17:58	20:28	17	2	8	Drizzle
	F002	B11	Dusk	20:54	02/08/17	20:35	22:55	15	4	8	Light drizzle
			Dawn	07:04	27/09/17	05:04	07:19	13	2	4	Dry, overcast
			Dusk	18:28	10/10/17	17:58	20:28	17	2	8	Drizzle
ST31926	F001	B1	Dusk	20:33	15/08/17	20:03	22:33	18	1	7	Dry, calm
			Dawn	07:06	28/09/17	05:06	07:21	15	1	1	Dry, cold
			Dusk	18:31	09/10/17	18:01	20:31	15	1	4	Dry
ST139171	F003	B12	Dusk	20:32	15/08/17	20:02	22:32	19	2	4	Dry
			Dawn	06:51	19/09/17	04:51	07:06	8	1	0	Dry, clear
			Dawn	07:25	10/10/17	05:25	07:40	12	2	8	Dry, warm
ST126282	F001	B5	Dusk	20:42	10/08/17	20:12	22:42	17	1	0	Dry, warm
			Dawn	07:02	26/09/17	05:02	07:17	14	0	8	Dry
			Dusk	18:25	11/10/17	17:55	20:25	14	2	8	Rain to dry
ST103525	F002	B24	Dawn	05:58	15/08/17	03:57	06:12	15	0	0	Dry, calm

Land parcel reference no.	Feature number	Building number	Survey type	Sunrise/Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
			Dusk	19:42	07/09/17	19:12	21:42	16	2	8	Light drizzle
	F006	B25	Dawn	05:57	15/08/17	03:57	06:12	14	0	6	Dry, calm
			Dawn	07:14	03/10/17	05:14	07:29	9	0	0	Dry, cold
			Dusk	18:15	17/10/17	17:45	20:15	15	1	8	Dry, calm
	F007	B3	Dusk	19:26	14/09/17	18:56	21:26	14 to 11	2	2	Dry, cold
			Dusk	19:10	21/09/17	18:40	21:10	15 to 10	1	3	Dry, clear
			Dawn	07:14	03/10/17	05:14	07:30	9	1	0	Dry, clear
U00026	F001	B30	Dusk	19:26	14/09/17	18:56	21:26	12	1	5	Dry, clear
ST147000	F001	B6	Dusk	19:12	20/09/17	18:42	21:12	16	3	8	Light drizzle
			Dawn	07:04	27/09/17	05:04	07:19	13	2	7	Dry
			Dusk	18:23	12/10/17	17:53	20:23	16	2	1	Dry
			Dawn	07:49	24/10/17	05:49	08:04	15	3	8	Dry, overcast
ST97213	F001	B22	Dusk	18:59	26/09/17	18:29	20:59	16	1	2	Dry, clear
			Dawn	07:14	03/10/17	05:14	07:29	9	1	4	Cold, light drizzle
WS16326	F001	B31	Dusk	19:01	25/09/17	18:31	21:01	18	3	8	Dry, wind
			Dawn	07:14	03/10/17	05:14	07:29	8	1	0	Dry, clear
WS56543	F001	B7	Dawn	07:04	27/09/17	05:04	07:19	14	0	8	Dry
			Dusk	18:40	05/10/17	18:10	20:40	14	2	4	Dry, clear
			Dawn	07:38	18/10/17	05:38	07:53	12	1	3	Dry, calm
ST100525	F001	B23	Dawn	07:02	26/09/17	05:02	07:17	18	0	6	Dry, overcast
			Dusk	18:28	10/10/17	17:58	20:28	14	0	5	Dry, clear

Table F.9: Building emergence/return summary table showing species identified and those emerging/re-entering close to the location

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
WS64408	F001	B8	Confirmed	Brown long eared Common pipistrelle Serotine	Soprano pipistrelle	No	N/A

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Soprano pipistrelle			
WS33009	F001	N/A	Moderate	Common pipistrelle Noctule Serotine	Common pipistrelle Noctule	No	N/A
WS24574	F001	B32	Moderate	Brown long eared Common pipistrelle Leisler's Myotis sp. Serotine Soprano pipistrelle	Common pipistrelle Soprano pipistrelle	No	N/A
U00016	F001	B29	Moderate	Common pipistrelle Myotis sp. Noctule Serotine Soprano pipistrelle	Common pipistrelle Myotis sp.	Yes- Possible emergence of a single bat but surveyor not confident due to low light levels.	Not recorded echolocating.
WS42423	F001	B15	High	Common pipistrelle Serotine	None	No	N/A
	F002	B16	High	Common pipistrelle Serotine Soprano pipistrelle	Common pipistrelle Pipistrellus sp.	No	N/A
WS42422	F001	B14	High	Common pipistrelle Soprano pipistrelle Noctule	Common pipistrelle Soprano pipistrelle	No	N/A
WS48619	F001	B33	Moderate	Common pipistrelle Leisler's Myotis sp. Noctule Serotine Soprano pipistrelle	Common pipistrelle Myotis sp. Noctule Soprano pipistrelle	No	N/A
ST128002	F002	B26	Moderate	Brown long eared bat Common pipistrelle	Noctule	No	N/A

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Leisler's Noctule Serotine Soprano pipistrelle			
ST125075	F001	B4	Confirmed	Brown long eared Common pipistrelle Noctule Serotine	Brown long eared Common pipistrelle	Yes – Possible emergence but surveyor not certain due to low light levels.	Common pipistrelle
WS57193	F001	B17	Confirmed	Brown long eared bat Common pipistrelle Lesser horseshoe Myotis Noctule Serotine Soprano pipistrelle	Brown long eared bat Common pipistrelle Lesser horseshoe	Yes – Common pipistrelle seen emerging from the northern aspect of the building on the 17/10/17	Common pipistrelle
	F002	B34	Moderate	Common pipistrelle Leisler's bat Lesser horseshoe Myotis Noctule Serotine	Common pipistrelle Lesser horseshoe Myotis	Common pipistrelle seen returning to roost on 21/09/17 at the south west corner of the building.	Common pipistrelle
	F003	B18	High	Brown long eared Common pipistrelle Leisler's bat Lesser horseshoe Myotis sp Noctule Serotine Soprano pipistrelle	Brown long eared Common pipistrelle Lesser horseshoe Myotis sp.	No	N/A
WS25151	F001	B13	Confirmed	Barbastelle Brown long eared bat	Barbastelle Brown long eared Common pipistrelle	Yes - Common pipistrelle recorded emerging from the	Common pipistrelle and brown long eared/barbastelle.

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Common pipistrelle Leisler's Noctule Serotine Soprano pipistrelle	Noctule	eastern side of the building from the eaves under the middle window.	
WS75681	F001	B9	Confirmed	Brown long eared Common pipistrelle Myotis sp. Noctule Serotine Soprano pipistrelle	N/A	Yes – Common pipistrelle recorded returning to roost on the eastern side of the building into the soffit box.	Common pipistrelle
	F002	B19	Confirmed	Barbastelle Brown long eared Common pipistrelle Myotis Noctule Serotine Soprano pipistrelle	Brown long eared Common pipistrelle Myotis sp.	Yes- possible bat emergence from gap in wall. Surveyor was not certain of this and no sound recorded.	Unknown.
	F003	B20	High	Brown long eared Common pipistrelle Noctule Serotine Soprano pipistrelle	Common pipistrelle	No	N/A
	F004	B21	High	Brown long eared Common pipistrelle Myotis sp. Noctule Serotine Soprano pipistrelle	Brown long eared Common pipistrelle	No	N/A
	F005	B10	Confirmed	Common pipistrelle Myotis species Serotine Brown long-eared	Common pipistrelle Myotis species	Yes – behaviour seen was consistent with a re-entry. Common pipistrelle possibly entered on north	Common pipistrelle

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
						side of barn on 06/09/17. Common pipistrelle emergence from building behind F005, and from under the soffit on 28/09/17.	
ST84283	F001	B2	Confirmed	Common pipistrelle Serotine Brown long-eared Myotis species Noctule Leisler's	Common pipistrelle Serotine Brown long-eared Myotis species Noctule	Yes – possible common pipistrelle emergence from gaps in tiles at back of house and another emergence from gaps in walls on 26/09/17. Yes – serotine possibly emerged from section of soffit or roof on 10/10/17.	Common pipistrelle Serotine
	F002	B11	Confirmed	Noctule Common pipistrelle Serotine Brown long-eared	Noctule Common pipistrelle	Yes – emergence of Pipistrellus sp. from gable ends, north side of the house 02/08/17.	Unknown
ST31926	F001	B1	Confirmed	Common pipistrelle Soprano pipistrelle Noctule Myotis species Brown long-eared Serotine	Common pipistrelle Soprano pipistrelle Noctule	No	N/A

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
ST139171	F003	B12	Confirmed	Noctule Common pipistrelle Soprano pipistrelle	Noctule Common pipistrelle	Yes – common pipistrelle emerging from house on 15/08/17.	Common pipistrelle
ST126282	F001	B5	Confirmed	Soprano pipistrelle Common pipistrelle Noctule Lesser horseshoe Leisler's	Soprano pipistrelle Common pipistrelle Noctule	Yes – common pipistrelle emergence from hanging tile over the porch of the house next door on 10/08/17	Common pipistrelle
ST103525	F002	B24	Moderate	Common pipistrelle Noctule Leisler's Serotine	Common pipistrelle	No	N/A
	F006	B25	Moderate	Common pipistrelle Noctule Soprano pipistrelle	Common pipistrelle	Yes – Common pipistrelle seen approaching chimney before re-entering 16 minutes prior to sunrise.	Common pipistrelle
	F007	B3	Confirmed	Common pipistrelle Myotis species Noctule Soprano pipistrelle Serotine	Common pipistrelle Myotis species Noctule	No	N/A
U00026	F001	B30	Moderate	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Noctule	Pipistrellus sp. Common pipistrelle	No	N/A
ST147000	F001	B6	Confirmed	Common pipistrelle Myotis species Brown long-eared Serotine	Common pipistrelle Myotis species Brown long-eared Lesser horseshoe	Yes – common pipistrelle emergence around base of chimney	Common pipistrelle Pipistrellus sp.

Land parcel	Feature number	Building number	Roosting potential	Species Identified	Species heard close to their emergence/re-entry times	Emergence/re-entry recorded	Species confirmed emerging/re-entering
				Nyctalus species Lesser horseshoe Soprano pipistrelle	Myotis species	and satellite dish 24 minutes after sunset on 20/09/17. Yes – Pipistrellus sp. return to roost on 27/09/17. Yes – common pipistrelle from roof apex on 12/1017.	
ST97213	F001	B22	Moderate	Common pipistrelle Brown long-eared Myotis species Serotine	Common pipistrelle Brown long-eared Myotis species	No	N/A
WS16326	F001	B31	Moderate	Noctule Common pipistrelle Myotis species Soprano pipistrelle	Noctule Common pipistrelle	No	N/A
WS56543	F001	B7	High	Common pipistrelle Brown long-eared Noctule	N/A	No	N/A
ST100525	F001	B23	Moderate	Noctule Common pipistrelle Barbastelle	Noctule – 7 minutes before sunset Common pipistrelle	No	N/A

Table F.10: Summary of the bat activity associated with the buildings surveyed within the zone of influence

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
WS64408	F001	B8	Confirmed	17/08/17	Dawn 06:00	No bats	No bats recorded
				19/09/17	Dusk 19:15	Common pipistrelle first heard 50 minutes after sunset. Serotine first heard 53 minutes after sunset. Soprano pipistrelle heard 74 minutes after sunset. Brown long eared bat heard 84 minutes after sunset.	Common pipistrelle was the predominant species heard throughout the survey with frequent foraging passes. A serotine was recorded briefly foraging around the building and a brown long eared bat was recorded making a brief foraging pass.
				05/10/17	Dusk 18:40	Soprano pipistrelle first recorded 42 minutes after sunset. Common pipistrelle first heard 52 minutes after sunset. Brown long eared bat recorded 85 minutes after sunset.	Low amount of bat activity was recorded with soprano pipistrelle and brown long eared bat briefly commuting through the site. A common pipistrelle was heard foraging briefly.
				10/10/17	Dawn 07:25	No bats	No bats recorded.
WS33009	F001	N/A	Moderate	16/08/17	Dawn 05:58	Noctule recorded 24 minutes before dawn.	Single noctule pass was recorded 24 minutes prior to sunrise.
				07/09/17	Dusk 19:42	Common pipistrelle first recorded 42	Common pipistrelle and serotine made single commuting pass close to the survey building.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes after sunset. Serotine recorded 73 minutes after sunset.	
WS24574	F001	B32	Moderate	13/09/17	Dusk 19:29	Common pipistrelle first recorded 21 minutes after sunset. Soprano pipistrelle first recorded 22 minutes after sunset. Serotine recorded 74 minutes after sunset. Brown long eared recorded 84 minutes after sunset. Leisler's recorded 86 minutes after sunset. Myotis recorded 122 minutes after sunset.	Common and soprano pipistrelles were recorded foraging throughout the survey. A serotine was recorded foraging briefly and Leisler's, myotis and brown long eared bats were recorded briefly commuting through the survey area.
				04/10/17	Dawn 07:18	Common pipistrelle recorded 33 minutes before dawn.	Common and soprano pipistrelles were heard making frequent passes throughout the survey until 30 minutes before sunrise. Two passes by brown long eared bats were recorded with the

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							last pass 74 minutes before sunrise.
				26/10/17	Dawn 07:52	Soprano pipistrelle recorded 70 minutes before dawn.	Very little activity recorded. Two common pipistrelle passes were recorded with the last pass 68 minutes before sunrise. A soprano pipistrelle made a brief pass around the front of the building 70 minutes before sunrise.
U00016	F001	B29	Moderate	13/09/17	Dusk 19:29	Serotine first recorded 59 minutes after sunset. Myotis sp. Recorded 66 minutes after sunset. Common pipistrelle recorded 70 minutes after sunset.	Myotis commuting activity was recorded around 20:35 and 21:19. A serotine made a single pass through the survey area at 20:28. Common pipistrelles were also recorded making occasional foraging passes.
				03/10/17	Dawn 07:17	No bats	No bats recorded.
				25/10/17	Dusk 17:57	Common pipistrelle first recorded 28 minutes after sunset. Noctule first recorded 47 minutes after sunset.	Constant bat activity recorded from 18:44 onwards. Foraging common pipistrelles were recorded throughout the survey flying up and down the east side of the building towards the fields to the

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Myotis first recorded 48 minutes after sunset. Soprano pipistrelle first recorded 70 minutes after sunset. Serotine first recorded 75 minutes after sunset.	south also making social calls. A possible emergence was recorded from the chimney by a non-echolocating bat at 19:11 but it was too dark for the surveyor to confirm it emerged from the survey building. Continuous serotine calls were recorded around the building between 19:12 and 19:15.
WS42423	F001	B15	High	13/09/17	Dusk 19:29	Serotine first recorded 61 minutes after sunset. Common pipistrelle first recorded 87 minutes after sunset.	Very little bat activity recorded with a single serotine pass at 20:28 and 20:56 and a common pipistrelle pass at 20:56.
				04/10/17	Dawn 07:15	No bats	No bats recorded.
				16/10/17	Dusk 18:15	No bats	No bats recorded.
				19/10/17	Dawn 07:40	No bats	No bats recorded.
	F002	B16	High	25/09/17	Dusk 19:00	Pipistrellus sp. recorded 11 minutes after sunset. Serotine recorded 34 minutes after sunset. Common pipistrelle	Pipistrellus sp. was recorded flying north east to south west behind the house calling continuously between 19:11 and 19:13. Both soprano and common pipistrelles were

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						recorded 37 minutes after sunset. Soprano pipistrelle recorded 84 minutes after sunset.	recorded foraging and social calling throughout the survey. A single serotine pass was recorded at 19:34.
				04/10/17	Dawn 07:15	No bats	No bats recorded.
				16/10/17	Dusk 18:16	No bats	No bats recorded.
WS42422	F001	B14	High	14/09/17	Dusk 19:26	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset. Noctule recorded 49 minutes after sunset.	Constant soprano and common pipistrelle foraging activity was recorded throughout the survey. Five noctule passes were recorded throughout the survey between 20:15 and 21:15.
				11/10/17	Dawn 07:27	No bats	No bats recorded
				16/10/17	Dusk 18:15	No bats	No bats recorded
WS48619	F001	B33	Moderate	24/08/17	Dusk 20:13	Noctule recorded 15 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle recorded 36 minutes after sunset.	Fairly consistent common pipistrelle foraging throughout the survey likely in a field to the east until around 21:05. Three myotis were recorded briefly passing through the site at 20:55, 21:24 and 21:49.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Myotis recorded 42 minutes after sunset. Serotine recorded 48 minutes after sunset. Leisler's recorded 49 minutes after sunset.	
				14/09/17	Dawn 06:44	No bats	No bats recorded
ST128002	F002	B26	Moderate	09/08/17	Dusk 20:44	Noctule recorded 18 minutes after sunset. Serotine recorded 55 minutes after sunset. Leisler's recorded 79 minutes after sunset. Common pip recorded 83 minutes after sunset. Soprano pip 91 minutes after sunset.	High levels of activity throughout the survey with Leisler's, serotine, noctules, common pipistrelle and soprano pipistrelle commuting through the site. Peak activity was recorded between 22:03 and 22:33.
				30/08/17	Dawn 06:10	Common pipistrelle recorded 31 minutes before dawn.	Two commuting noctules were recorded at 05:18 and 05:31. A single common pipistrelle pass was recorded at 05:39.
				14/09/17	Dawn 06:44	Brown long-eared bat recorded 57 minutes before dawn.	A single brown long eared bat pass was recorded at 05:47.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
ST125075	F001	B4	Confirmed	02/08/17	Dawn 05:37	Common pipistrelle recorded 23 minutes before dawn.	Bats heard commuting through the survey area between 03:39 and 05:01. Common pipistrelles made occasional passes throughout the survey whilst foraging over the garden, F001 and the surrounding woodland. A couple of passes from both serotines and brown long eared were recorded. A noctule was heard at 05:01 half an hour before sunrise commuting at high altitude (30m) heading south east over F001. A common pipistrelle was recorded still foraging above the garden at 05:12.
				04/10/17	Dusk 18:43	Common pipistrelle recorded 30 minutes after sunset.	Two foraging common pipistrelle calls were recorded at 19:13 and 19:15 with no other calls recorded.
				09/10/17	Dusk 18:30	Noctule recorded 24 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset.	A brief quiet noctule was recorded passing through the site. Common pipistrelles were recorded foraging throughout the survey between 19:22-20:24. A single brown long eared

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Brown long eared bat recorded 55 minutes after sunset. Serotine recorded 61 minutes after sunset.	bat pass was recorded at 20:25. Possible common pip emergence from F001e or f but it was too dark for the surveyor to be certain.
				18/10/17	Dawn 07:38	No bats	No bats recorded
WS57193	F001	B17	Confirmed	21/09/17	Dawn 06:55	Noctule recorded 9 minutes before sunrise. Common pipistrelle recorded 25 minutes before dawn.	Common pipistrelles were recorded social calling between 05:14-05:29. At 06:20 a common pipistrelle was seen circling the house (F002) whilst social calling before entering at the south west corner. Brown long eared bats and noctules were also heard briefly passing through the site.
				03/10/17	Dusk 18:45	Common pipistrelle recorded 26 minutes after sunset. Noctule recorded 27 minutes after sunset. Serotine recorded 32 minutes after sunset. Brown long eared bat recorded 37	Common pipistrelles and serotines were recorded throughout the survey foraging and commuting through the back garden. Noctule, brown long eared and myotis were all recorded briefly passing through the survey area. Bat activity was near continuous over the course of the survey.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes after sunset. Lesser horseshoe recorded 43 minutes after sunset. Soprano pipistrelle recorded 66 minutes after sunset. Myotis recorded 73 minutes after sunset.	
				12/10/17	Dawn 07:28	Common pipistrelle recorded 68 minutes before dawn.	Very little bat activity was recorded during the survey. Only 3 common pipistrelle passes were recorded between 06:25 and 06:28 with bats moving quickly through the survey area.
				17/10/17	Dusk 18:13	Lesser horseshoe recorded 23 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset. Soprano pipistrelle recorded 78 minutes after sunset.	Several lesser horseshoe passes were recorded during the survey at 18:36 and another pass recorded at 18:50. A common pipistrelle was seen emerging from the north elevation of the building below the soffit box at 18:41. It was then observed flying east towards the road. Near continuous

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							common pipistrelle foraging activity was recorded between 18:56-20:05.
	F002	B34	Moderate	21/09/17	Dawn 06:55	Noctule recorded 9 minutes before dawn. Common pipistrelle recorded 25 minutes before dawn. Brown long-eared bat recorded 63 minutes before dawn.	One common pipistrelle seen returning to roost at the south west corner of the building. Common pipistrelles were recorded social calling between 05:14-05:29. Brown long eared, soprano pipistrelles and noctules were also heard briefly passing through the site.
				12/10/17	Dawn 07:29	Pipistrellus sp. Recorded 60 minutes before dawn.	Very little bat activity recorded during the survey with only 2 pipistrelle passes recorded at 06:25 and 06:29.
				12/10/17	Dusk 18:23	Noctule recorded 22 minutes after sunset. Leisler's bat recorded 26 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset.	Serotine calls were heard regularly throughout the survey foraging within the survey area. A lesser horseshoe made a single pass through the survey area at 19:09. Common pipistrelles were also heard foraging throughout the survey with a couple of brief

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Serotine recorded 35 minutes after sunset. Lesser horseshoe recorded 46 minutes after sunset. Myotis recorded 58 minutes after sunset.	passes from myotis, noctules and Leisler's.
				25/10/17	Dusk 17:57	Noctule recorded 19 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset. Serotine recorded 46 minutes after sunset. Noctule recorded 55 minutes after sunset.	Common pipistrelles were heard foraging and social calling near continuously through the survey from 18:24-19:56. Serotines made three passes at 18:43, 18:56 and 19:15.
	F003	B18	High	26/09/17	Dusk 18:59	Pipistrelle recorded 20 minutes after sunset. Serotine recorded at 34 minutes after sunset. Myotis sp recorded 44 minutes after sunset.	Pipistrelles were heard socialising within 30 minutes of sunset. Three serotines were observed commuting at high altitude over F003 between 19:33-19:38. Between 20:15-20:43 a common pipistrelle was recorded constantly foraging around F003 and the courtyard.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Brown long eared recorded 49 minutes after sunset. Common pipistrelle recorded 76 minutes after sunset. Soprano pipistrelle recorded 76 minutes after sunset. Noctule recorded 80 minutes after sunset.	
				04/10/17	Dawn 07:17	Common pipistrelle recorded 32 minutes before dawn.	Very little bat activity. Only 3 common pipistrelle passes were recorded during the course of the survey at 06:07, 06:16 and 06:45.
				12/10/17	Dusk 18:25	Noctule recorded 23 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset. Lesser horseshoe recorded 25 minutes after sunset.	Five lesser horseshoe passes were heard during the survey between 18:50-19:06. Common pipistrelles were heard foraging throughout the survey with occasional brief passes by noctules and Leisler's.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Leisler's recorded 38 minutes after sunset.	
WS25151	F001	B13	Confirmed	14/08/17	Dusk 20:34	Noctule recorded 10 minutes after sunset. Serotine recorded 39 minutes after sunset. Leisler's bat recorded 46 minutes after sunset.	One common pipistrelle was recorded emerging from the south east corner of the building around the guttering and tiles at 20:56 and then flying off north east. A noctule was recorded flying at 10m height south west very soon after sunset at 20:44. Common pipistrelles were recorded foraging and socialising around the building throughout the survey with occasional serotine and Leisler's passes.
				28/09/17	Dawn 07:06	Soprano pipistrelle recorded 27 minutes before dawn. Common pipistrelle recorded 41 minutes before dawn.	Three possible common pipistrelle re-entries into the southern side of the building at 06:26, 06:28 and 06:30. Surveyor was not certain that bats re-entered the building as they went around the corner but their behaviour suggested that they were returning to roost. Common pipistrelles were heard foraging

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							and socialising throughout the survey. Two quiet brown long eared passes were heard at 05:35 and 05:41.
				03/10/17	Dusk 18:45	Common pipistrelle recorded 13 minutes after sunset. Brown long eared bat recorded 49 minutes after sunset. Barbastelle recorded 39 minutes after sunset. Soprano pipistrelle recorded 75 minutes after sunset.	A common pipistrelle was recorded emerging from the eastern side of the building above the middle window from the eaves at 19:07 and flying off in a north west direction. A second possible emergence was recorded once it had become quite dark so the surveyor was not certain that the bat emerged from the building. The emergence was recorded by the surveyor at 19:34 and a barbastelle and a brown long eared bat both made passes within ten seconds of each other at this time so it was not possible to be confident of species. Barbastelle bats made several passes throughout the survey.
WS75681	F001	B9	Confirmed	05/09/17	Dawn 06:30	Common pipistrelle	Serotines and common pipistrelles were both

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						recorded 11 minutes before dawn.	recorded making many foraging passes around F001. A brown long eared was recorded making a commuting pass at 04:45 and there were two foraging noctules passing through the site at 04:30 and 05:25.
				11/10/17	Dawn 07:27	Noctule recorded 23 minutes before dawn.	One common pipistrelle recorded returning to roost at 06:56 into the soffit/lower roof area on the front east of the main house. Common pipistrelles were heard foraging and socialising around the site throughout the survey. A single myotis pass was recorded at 07:00 and two soprano pipistrelle passes at 06:02 and 07:03.
	F002	B19	Confirmed	07/09/17	Dawn 06:33	Noctule recorded 19 minutes before dawn. Common pipistrelle recorded 21 minutes before dawn. Soprano pipistrelle recorded 22	A single barbastelle pass was recorded at 05:06. Brown long eared bats and soprano pipistrelles were recorded foraging throughout the survey. Serotines and myotis made brief passes through the survey area. A single noctule

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes before dawn. Myotis sp. Recorded 33 minutes before dawn.	pass was recorded close to sunrise at 06:14.
				02/10/17	Dusk 18:43	Common pipistrelle recorded 22 minutes after sunset. Serotine recorded 41 minutes after sunset. Soprano pipistrelle recorded 57 minutes after sunset. Brown long eared recorded 66 minutes after sunset. Noctule recorded 98 minutes after sunset. Myotis recorded 112 minutes after sunset.	Common pipistrelle passes were recorded throughout the survey with the first pass being very soon after sunset at 19:05. Three serotine passes were recorded during the first half of the survey between 19:24 and 19:46. Brown long eared, noctule and myotis were also recorded briefly passing through the site.
				17/10/17	Dusk 18:13	Nyctalus sp. recorded 18 minutes after sunset. Common pipistrelle recorded 45	Distant Nyctalus sp. call heard at 18:31 soon after sunset. A possible emergence from a crack in the wall was recorded at 18:36 but the surveyor was not certain it was a bat

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes after sunset. Myotis recorded 48 minutes after sunset. Soprano pipistrelle recorded 73 minutes after sunset.	emerging. Common and soprano pipistrelles were recorded foraging throughout the survey over the shed in the garden before flying off to the west and social calling was also heard. Several myotis passes were also heard during the survey.
	F003	B20	High	17/08/17	Dusk 20:29	Common pipistrelle recorded 31 minutes after sunset. Serotine recorded 44 minutes after sunset. Nyctalus sp. recorded 79 minutes after sunset. Noctule recorded 84 minutes after sunset. Soprano pipistrelle recorded 106 minutes after sunset.	Common pipistrelle recorded soon after sunset at 21:00 and passes heard throughout the survey. Two serotine passes were recorded at 21:13 and 21:49. Brief noctule and soprano pipistrelle passes were also recorded.
				05/09/17	Dawn 06:30	Soprano pipistrelle recorded 34 minutes before dawn.	Brown long eared bats and soprano pipistrelles were heard foraging throughout the survey.
				16/10/17	Dusk 18:15	N/A	No bats heard.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
	F004	B21	High	07/09/17	Dawn 06:32	Common pipistrelle recorded 20 minutes before dawn.	Common pipistrelles were heard commuting and foraging throughout the survey up until 16 minutes before sunrise. Myotis, brown long eared and serotine were recorded making brief passes through site.
				04/10/17	Dusk 18:43	Common pipistrelle recorded 30 minutes after sunset. Brown long eared bat recorded 109 minutes after sunset.	Common pipistrelles were recorded throughout the survey from 19:13 until survey end. A brown long eared bat made a pass through the site at 20:32.
				17/10/17	Dusk 18:13	Noctule recorded 19 minutes after sunset. Brown long eared bat recorded 27 minutes after sunset Common pipistrelle recorded 44 minutes after sunset. Soprano pipistrelle recorded 74 minutes after sunset.	A noctule was recorded commuting through the site soon after sunset at 18:32. Three brown long eared passes were recorded at 18:40, 19:00 and 19:02. Common pipistrelles made frequent foraging passes between 18:57 and 20:04.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
	F005	B10	Confirmed	06/09/17	Dawn 06:31	Common pipistrelle recorded 26 minutes before dawn.	Common pipistrelle flew towards and then over the building in the courtyard (F005). Behaviour seen was consistent with a re-entry so possible bat may have entered on north side of barn. This occurred 20 minutes prior to sunrise
				28/09/17	Dusk 18:54	Common pipistrelle recorded 24 minutes after sunset.	Common pipistrelles heard and seen continuously from 19:23 until 19:49 with lots of social calling, and then between 20:12 and 20:19. Emergence from building behind F005 with bats flying in a south direction from 19:26 until 19:36. The final bat was seen emerging from under soffit then all three bats were seen foraging over driveway north to south and back at 8m above ground level. Seen foraging and socialising until 20:54. Serotine heard between 20:32 and 20:38 with social calling. Single brown long-eared pass 28 minutes after sunset.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
				11/10/17	Dusk 18:26	Myotis species recorded 24 minutes after sunset – 16 minutes earlier than standard. Common pipistrelle recorded 29 minutes after sunset	Myotis species seen foraging up and down track adjacent to barn (F005) east to west. Multiple passes from 18:52 to 18:55. Continuous common pipistrelle foraging up and down passage towards building yard from south to north at 19:00. Foraging and social calling at 19:22. Bats were foraging around south-east of the building. Foraging around the south-east side of the building continued from 19:34 until 19:56.
ST84283	F001	B2	Confirmed	01/08/17	Dawn 05:35	Noctule recorded 23 minutes before dawn. Common pipistrelle recorded 28 minutes before dawn.	Leisler's heard at 03:58. Serotine heard for three passes within survey at 03:58, and 04:40. Noctule heard for three passes at 04:12, 05:00, and 05:12. Common pipistrelle heard at 04:42 and 05:07; 28 minutes before sunrise.
				26/09/17	Dusk 19:01	Common pipistrelle recorded 12 minutes after sunset	Possible common pipistrelle emergence from gaps in tiles at back of house and flying in a south-

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Serotine recorded 23 minutes after sunset Brown long-eared recorded 39 minutes after sunset Myotis species recorded 44 minutes after sunset Leisler's recorded 45 minutes after sunset	western direction at 19:13. A second possible emergence from the same south-west direction but from gaps in the walls to the left of first emergence at 19:28. Both within half an hour of sunset. Social calling serotines seen flying from north to south at 19:31. Three serotines seen flying in south or south-west direction from 19:32 until 19:55. Within that time, myotis species, Leisler's and brown long-eared were heard but not seen. Single serotine bat seen flying towards the house in a north direction at 19:55. Similar behaviour seen by three serotines flying north towards the house at 20:08. Two Pipistrellus sp. bats heard socialising at 20:16. Bats heard until 21:00.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
				10/10/17	Dusk 18:28	Noctules recorded 27 minutes after sunset Serotine recorded 40 minutes after sunset	Serotine emergence at 19:13, appearing instantly but not seen. Possibly from section of soffit or roof obstructed from view by roof extension. Probably the same bat seen flying over the house at 19:15 towards the west. Same behaviour seen again at 20:15 fly over the house in a western direction. Leisler's seen flying in a western direction 10m north of the house at 19:14.
	F002	B11	Confirmed	02/08/17	Dusk 20:54	Noctule recorded 32 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset.	Possible emergence of unknown species at 21:09, 15 minutes after sunset. Seen emerge from house gable ends of north side and flying towards the west. Common pipistrelle seen circling the house possible to inspect the roost but did not enter at 21:28, 34 minutes after sunset. Serotine heard from 21:33 until 22:38 intermittently.
				27/09/17	Dawn 07:04	Common pipistrelle recorded 24	Common pipistrelle heard intermittently

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes before sawn.	from 05:42 until 06:40 for at least 14 passes. Brown long-eared heard for one pass at 05:54.
ST31926	F001	B1	Confirmed	15/08/17	Dusk 20:33	Common pipistrelle recorded 5 minutes after sunset Soprano pipistrelle recorded 21 minutes after sunset	Common pipistrelle seen commuting into passage between houses at 20:38, 5 minutes after sunset, for three passes. Heard again continuously from 20:51 until 21:42. Noctule heard for one pass at 21:43 before common pipistrelle calls heard again from 21:44 until 22:27. Soprano pipistrelle, myotis species, serotine and noctules heard for one pass at a time in between continuous common pipistrelle calls
				28/09/17	Dawn 07:06	Nyctalus sp/Serotine recorded 52 minutes before dawn.	Noctule heard at 05:12 and then two noctules seen flying north-east at 05:13. Consistent calls from noctule and common pipistrelles and Pipistrellus sp. for six minutes. Common pipistrelles were socialising at 05:14, and noctules heard again at 05:18.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							Myotis species heard at 05:22 only. Two brown long-eared bats seen flying in a west direction in between gaps at rear and middle of house. There is a gap between the house and the adjacent house north-east that bats were using to commute. Continuous from 05:56 to 06:04. Most activity seen at the rear of the house. Flew in the same direction at 06:13. Only a single bat seen four times.
				09/10/17	Dusk 18:31	Noctule recorded 26 minutes after sunset. Serotine heard 57 minutes after sunset. Common pipistrelle recorded 61 minutes after sunset – 30 minutes later than standard.	Noctule first heard for one pass at 18:57. Continuous passes between 19:47 and 20:01. Serotine heard for three passes at 19:26 and then another pass at 19:38. Common pipistrelle was heard foraging and socialising at 19:32 for one pass. Intermittent passes from 19:43 until 19:44, and 18 passes from 20:17 until 20:28.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
ST139171	F003	B12	Confirmed	15/08/17	Dusk 20:32	Noctule recorded at sunset Common pipistrelle recorded 15 minutes after sunset	Possible emergence of common pipistrelle from house at 20:47. Seen flying around the house at 20:53 before three common pipistrelles were seen foraging south west across arch and around house. At 21:10, seen foraging towards the east in front of house. Constant passes from 20:47 until 21:35. Noctule first heard for two passes at sunset and then 71 minutes later foraging at 21:43. Two more passes at 21:54 and 22:11.
				19/09/17	Dawn 06:51	N/A	No bats seen or heard
				10/10/17	Dawn 07:27	Common pipistrelle recorded 27 minutes before sunrise. Soprano pipistrelle recorded 65 minutes before sunrise.	Soprano pipistrelle heard at 05:39, 06:12, and finally 06:22, 65 minutes prior to sunrise Common pipistrelle heard 05:52 until 06:12, and finally at 07:00, 27 minutes before sunrise
ST126282	F001	B5	Confirmed	10/08/17	Dusk 20:42	Soprano pipistrelle recorded 17 minutes after sunset Common pipistrelle	Soprano pipistrelle heard at 20:59, and 22:08 only. Possible emergence by a common pipistrelle from next door's house at

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						recorded 27 minutes after sunset Noctule heard 34 minutes after sunset	21:09 from the hanging tile over the porch, just to the right of the apex. One bat seen at 21:10 flying towards the west, left and right in front of the house. Seen foraging at 21:31 towards the east, as well as socialising. All to the left of the house. Constant foraging from 21:43 until 21:52. Finally, socialising between two bats at 22:05. Noctules heard twice at 21:16 and 22:12.
				26/09/17	Dawn 07:02	Noctule recorded 18 minutes before dawn. Common pipistrelle recorded 21 minutes before dawn.	Noctule heard from 05:03 consistently until 06:44. Leisler's noctule was heard for a single pass at 05:04. Common pipistrelles were heard intermittently between the noctule passes at 05:32, 05:46 to 05:58, and more consistently from 06:06 to 06:10.
				11/10/17	Dusk 18:25	Common pipistrelle recorded 33 minutes after sunset.	Common pipistrelle seen flying through the garden behind the property towards the south-west at approximately 5m high

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Noctule recorded 35 minutes after sunset.	via gap between houses at 18:58. At least six passes of noctule between 19:00 and 19:06, and passes again at 19:29, and 19:51. Common pipistrelle heard but not seen again from 19:08, and 19:46 to 19:51. Faint myotis species call recorded at 20:09, 104 minutes after sunset.
ST103525	F002	B24	Moderate	15/08/17	Dawn 05:58	Common pipistrelle recorded 13 minutes before dawn.	Noctule heard at 04:19. Continuous common pipistrelle calls for the remained from 04:54 until 05:45; 13 minutes before sunrise.
				07/09/17	Dusk 19:42	Common pipistrelle recorded 25 minutes after sunset Leisler's noctule recorded 46 minutes after sunset	Common pipistrelle recorded for at least four passes between 20:07 and 20:22; 25 to 40 minutes after sunset. Seen commuting above surveyors at 20:22. Leisler's noctule heard intermittently throughout from 20:28, 21:14, and 21:17. Serotine seen commuting north at 20:28, and heard at 21:13 and 21:16.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
	F006	B25	Moderate	15/08/17	Dawn 05:57	Common pipistrelle recorded 26 minutes before dawn.	Common pipistrelle returned to roost at 16 minutes prior to sunrise. Seen approaching from chimney before entering. Heard consistently from 04:52 until re-entry.
				03/10/17	Dawn 07:14	Common pipistrelle recorded 97 minutes before dawn.	Noctule recorded at 05:22. Soprano pipistrelle heard at 05:33. Common pipistrelle heard at 05:37. One pass each, no sightings.
				17/10/17	Dusk 18:15	Common pipistrelle recorded 40 minutes after sunset	At least 19 passes of common pipistrelle heard from 19:25 until 19:38. Bats likely to be passing behind surveyors along line of trees at 19:29; multiple passes and feeding and social calls. Two passes heard at 20:05.
	F007	B3	Confirmed	14/09/17	Dusk 19:26	Common pipistrelle recorded 6 minutes after sunset Myotis species recorded 34 minutes after sunset	Common pipistrelle seen commuting over garage towards the north-east at 6m above ground level. Myotis species seen commuting in the same north-east direction, commuting over the reception building over a driveway at 4m above

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							ground level. Common pipistrelle social calling heard at 21:09 and commuting at 21:24.
				21/09/17	Dusk 19:10	Noctule recorded 25 minutes after sunset Soprano pipistrelle recorded 53 minutes after sunset	Distant noctule calls recorded between 19:35 and 19:42. Very brief soprano pipistrelle calls heard at 20:07. Another two calls heard at 20:22 and 20:49. Common pipistrelles heard commuting, foraging, and socialising from 20:19 to 20:43. From 20:50 until 21:07, common pipistrelles heard socialising and commuting again. Serotine heard commuting at 20:26 and 20:33
				03/10/17	Dawn 07:14	N/A	No bats seen or heard
U00026	F001	B30	Moderate	14/09/17	Dusk 19:26	Pipistrellus sp. recorded 29 minutes after sunset. Common pipistrelle recorded 47 minutes after sunset	Possible bat seen commuting over roof of house 24 minutes after sunset but not picked up by detector. Unsure of species. Continuous common pipistrelle foraging heard at 20:13. Mixture between Pipistrellus sp., soprano pipistrelle, and noctule until 20:41.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
ST147000	F001	B6	Confirmed	20/09/17	Dusk 19:12	Common pipistrelle recorded 24 minutes after sunset Myotis species recorded 42 minutes after sunset Brown long-eared recorded 46 minutes after sunset Nyctalus species recorded 75 minutes after sunset	Possible common pipistrelle emergence around base of chimney and satellite dish flying in a western direction at 4m above ground level. Seen 24 minutes after sunset. Another common pipistrelle seen foraging in an eastern direction from paddock before flying south over the garage at 19:40, 28 minutes after sunset. Serotine and Myotis species both heard at 42 minutes after sunset. Brown long-eared recorded four minutes later. Nyctalus species recorded 75 minutes after sunset.
				27/09/17	Dawn 07:04	Common pipistrelle recorded 29 minutes before dawn. Pipistrellus sp. Recorded 30 minutes before dawn.	Common pipistrelle heard consistently socialising and foraging between 05:04 and 06:25. At 06:24, Pipistrellus sp. possible return to roost seen. Bat did not echolocate. Disappeared around the north-west corner at 6m above ground level. Common pipistrelle was seen socialising at

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
							06:25 for several passes, flying in a north direction. At least four myotis species passes heard between pipistrelle calls at 05:33
				12/10/17	Dusk 18:23	Common pipistrelle recorded 27 minutes after sunset Lesser horseshoe recorded 31 minutes after sunset Myotis species recorded 49 minutes after sunset	Likely emergence of common pipistrelle flying in an eastern direction from the roof apex on the north side. Brief lesser horseshoe call heard at 18:54. Common pipistrelles social and foraging calls recorded consistently from 18:56 until 19:47, and then at 19;58. Soprano pipistrelle recorded at 19:55.
				24/10/17	Dawn 07:49	Lesser horseshoe bat recorded 28 minutes before dawn. Pipistrellus sp. Recorded 37 minutes before dawn.	Common pipistrelle recorded commuting at 06:06. Pipistrellus sp. recorded at 06:06 and then again at 07:12. Multiple passes of lesser horseshoe between 06:38 and 06:39 before a final brief call at 07:21.
ST97213	F001	B22	Moderate	26/09/17	Dusk 18:59	Common pipistrelle recorded 27 minutes after sunset	Common pipistrelle seen commuting around the garden before flying north-west 27 minutes after sunset. Recorded social calls at

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						Brown long-eared recorded 32 minutes after sunset Myotis species recorded 62 minutes after sunset	19:29 for several passes. Intermittently recorded commuting and foraging between 19:33 and 20:52. Several passes of brown long-eared 32 minutes after sunset. Serotine recorded commuting for several passes at 19:55. Myotis species recorded commuting between 20:00 and 20:16.
				03/10/17	Dawn 07:14	Serotine recorded 101 minutes before dawn.	Serotine recorded commuting at 05:33. Common pipistrelle recorded commuting at 06:13, 59 minutes prior to sunrise.
WS16326	F001	B31	Moderate	25/09/17	Dusk 19:01	Noctule recorded 10 minutes after sunset Common pipistrelle recorded 23 minutes after sunset Leisler's noctule recorded 33 minutes after sunset	Single pass of noctule at 19:11. Common pipistrelle consistently passing from 19:24 until 21:00. Bat seen flying north-west then south-west around driveway and garden before flying south-west away. Same behaviour recorded at 19:29 and 19:35 for several passes.
				03/10/17	Dawn 07:14	Soprano pipistrelle recorded 58	Myotis species recorded at 05:44.

Land parcel	Feature number	Building number	Roosting potential	Date	Survey type and sunrise/sunset time	First recorded activity after dusk	Description of activity
						minutes before dawn.	Soprano pipistrelle recorded at 06:16.
WS56543	F001	B7	High	27/09/17	Dawn 07:04	Common pipistrelle recorded 32 minutes before dawn. Noctule recorded 42 minutes before dawn.	Common pipistrelle passes recorded at 05:03, 05:13 and 06:28. Brown long-eared recorded for two passes at 05:07. Noctule passes recorded at 05:38 and 06:18.
				05/10/17	Dusk 18:40	N/A	No bats seen or recorded
				18/10/17	Dawn 07:38	N/A	No bats seen or recorded
ST100525	F001	B23	Moderate	26/09/17	Dawn 07:02	Noctule recorded 26 minutes before dawn.	Possible barbastelle seen flying over the house at 05:04 and recorded at 05:22. Noctule recorded consistently from 05:06 until 06:44. Common pipistrelle recorded for several passes at 05:09, 05:22, 05:50, and 06:02.
				10/10/17	Dusk 18:28	Noctule recorded 7 minutes before sunset. Common pipistrelle recorded 29 minutes after sunset.	Noctule heard commuting and foraging at 18:21, 18:57, 19:27 to 19:32, and 19:47 to 19:52. Common pipistrelle seen commuting north-west along hedge line towards caravan park 29 minutes after sunset.

F.3 Transect survey results

Table F.11: Summary of conditions associated with transect surveys

Transect	Survey type	Sunrise/ Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
Offline 1	Dusk	20:00	10/04/17	19:57	22:40	7	1	6	Cool and cloudy
Offline 1	Dusk	20:55	15/05/17	20:54	23:30	14	2	8	Heavy rain prior to survey
Offline 1	Dusk	21:30	22/06/17	21:29	00:29	30	1	1	Hot and dry
Offline 1	Dawn	04:58	23/06/17	03:00	05:15	18	1	1	Hot and dry
Offline 1	Dusk	21:17	18/07/17	21:00	00:15	23	1	3	Storm clouds to the south
Offline 1	Dusk	20:56	02/08/17	20:54	23:54	18	5	8	Dry but windy
Offline 1	Dusk	19:46	06/09/17	19:44	22:44	12	0	4	Overcast. Mild and calm
Offline 1	Dusk	18:47	02/10/17	18:47	21:47	12	2	8	Rain 30 minutes before survey start
Offline 4	Dusk	20:03	12/04/17	20:00	22:04	11	1	6	Dry, still night
Offline 4	Dusk	21:07	23/05/17	21:04	22:49	14	1	8	Cloudy, still evening
Offline 4	Dusk	21:28	14/06/17	21:25	00:26	16	1	3	Still
Offline 4	Dawn	04:57	15/06/17	02:55	05:10	11	1	0	Still, clear sky
Offline 4	Dusk	21:22	13/07/17	21:20	00:20	18	1	8	Humid, one light shower
Offline 4	Dusk	20:56	02/08/17	20:54	23:54	17	5	8	Light Drizzle up to 22:54 and dry after. Overcast. Windy, Wet and Humid.
Offline 4	Dusk	19:46	06/09/17	19:44	22:44	17	1	1	Dry, cold
Offline 4	Dusk	18:41	05/10/17	18:40	21:40	11	0	3	Cold, clear
Online 1	Dusk	20:01	11/04/17	19:59	22:45	10	3	2	Winds gust, getting cooler throughout, down to 6 degrees.
Online 1	Dusk	21:05	22/05/17	21:04	23:21	14	1	3	Still, dry calm
Online 1.1	Dusk	21:30	19/06/17	21:37	23:49	23	0	0	Warm, muggy evening
Online 1.1	Dawn	04:57	20/06/17	02:56	05:11	17	0	0	Mild, still evening
Online 1.1	Dusk	21:16	19/07/17	21:15	00:15	20	2	8	Intermittent heavy showers
Online 1.1	Dusk	20:35	14/08/17	20:34	23:24	18	0	6	Warm, cloudy. Sudden heavy rain from 23:00.

Transect	Survey type	Sunrise/ Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
Online 1.1	Dusk	19:51	04/09/17	19:49	22:49	18	1	8	Cloudy, muggy, light rain previous to survey
Online 1.1	Dusk	18:47	02/10/17	18:47	21:47	12	1	8	Cloudy, light rain
Online 1.2	Dusk	21:29	03/07/17	21:25	00:28	16	1	7	Dry, calm and overcast
Online 1.2	Dawn	05:04	04/07/17	03:02	05:17	16	1	7	Dry, calm and overcast
Online 1.2	Dusk	21:23	12/07/17	21:21	00:21	19	2	3	Partly sunny
Online 1.2	Dusk	20:58	01/08/17	20:56	23:48	19	0	7	still, cloudy and warm
Online 1.2	Dusk	19:51	04/09/17	19:49	22:49	19	1	8	Slight drizzle
Online 1.2	Dusk	18:47	02/10/17	18:47	21:47	13	2	8	Cold, rain all evening before survey and light rain on and off during survey
Online 2	Dusk	20:01	11/04/17	19:57	22:25	11	1	3	Dry and still night with light cloud
Online 2	Dusk	20:58	17/05/17	20:58	23:30	11	0	6	Heavy rain most of day. No rain at time of survey.
Online 2.1	Dusk	21:27	13/06/17	21:26	00:26	19	1	5	Warm, very slight breeze, lots of bugs
Online 2.1	Dawn	04:57	14/06/17	02:56	05:11	11	1	2	Cool and clear
Online 2.1	Dusk	21:22	13/07/17	21:21	00:24	20	1	3	Mild, slight breeze
Online 2.1	Dusk	20:56	02/08/17	20:54	23:45	17	6	8	Gusting strongly, light rain at start. Clear and F2 by end of survey.
Online 2.1	Dusk	19:48	05/09/17	19:47	22:47	17	3	5	Overcast
Online 2.1	Dusk	18:43	04/10/17	18:43	21:43	11	3	7	Cold, cloudy
Online 2.2	Dusk	21:30	26/06/17	21:29	00:29	19	0	7	Dry and fair
Online 2.2	Dawn	04:59	27/06/17	02:57	05:12	14	0	3	Dry and fair
Online 2.2	Dusk	21:23	12/07/17	21:12	00:24	17	0	3	Cool and quite clear
Online 2.2	Dusk	20:54	03/08/17	20:52	23:52	16	3	6	Dry warm night
Online 2.2	Dusk	19:48	05/09/17	19:47	22:47	16	2	4	Dry breezy night
Online 2.2	Dusk	18:43	04/10/17	18:43	21:43	9	1	7	Dry breezy overcast

Table F.12: Summary of bat activity noted on the transect surveys

Date	Type and time	Route	Emergence/Re-entry activity	Observations
10/04/17	Dusk	Offline 1	None	Soprano pipistrelles were recorded foraging close to the road bridge before stop B making approximately 4 passes. Flew off west along the A303. *Pipistrellus sp.* passes were recorded at stop E along the southern edge of Annis Hill wood and foraging activity from common pipistrelles, soprano pipistrelles and serotine was continuous as surveyors walked to stop F. After leaving the edge of Annis Hill only 1 further bat call was recorded as a single soprano pipistrelle pass just after the surveyors left stop H.
11/04/17	Dusk	Online 1	None	No bats were recorded until after the surveyors had stopped at stop C. A brown long-eared bat and common pipistrelle were recorded along the tree lined public footpath between stops C and D. A brown long-eared bat was heard at stop F in the fields east of Howell Hill, a *Myotis sp.* pass was also heard as the surveyors left stop F. Common pipistrelles were recorded foraging in the cow fields between stop H and I, and at the edge of Ridge Copse between stops I and J.
		Online 2	None	A soprano pipistrelle was recorded commuting along Slate's lane between stops C and D. A soprano pipistrelle was also recorded making 3 opportunistic foraging passes at stop D before flying off south. A Lesser horseshoe bat and soprano pipistrelles were recorded foraging between stops D and E. No more bats were heard until the surveyors reached Pepper Hill Copse where a brief soprano pipistrelle commuting pass was recorded at stop H. A soprano pipistrelle was recorded making 2 foraging passes towards the end of the transect at the Hazlegrove roundabout.
12/04/17	Dusk	Offline 4	None	The highest amount of bat activity was recorded towards the end of the transect in the fields around Hazlegrove school. Soprano and common pipistrelles were recorded making a total of 12 passes at stop I foraging along the hedgerow lining the A303. Leisler's bats and noctules were recorded making passes above the surveyor in the fields at Hazlegrove. The highest activity was recorded along the hedgerow bordering the road and around the edges of the woodland at Hazlegrove. Another area where bats were recorded was along the hedgerows north of Pepper Hill Copse at stop E where 4 soprano pipistrelle passes were recorded foraging in an adjacent field. Activity from soprano pipistrelles was constant as the surveyors proceeded to the next stop.
15/05/17	Dusk	Offline 1	None	A common pipistrelle was recorded foraging over stop I; near Newclose farm, 30 minutes after sunset. A noctule was recorded commuting over the surveyors along the hedgerow two minutes before they reached stop H. At stop H surveyors recorded a foraging common pipistrelle making several passes overhead. A foraging soprano pipistrelle and *Myotis sp.* were recorded just after the surveyors left the stop. A Leisler's bat, common pipistrelle and soprano pipistrelle were recorded commuting along the edge of the woodland at stop G. As surveyors progressed to stop F around the edge of Annis Hill serotine, a Leisler's bat and noctule were recorded commuting along the edge of the woodland. At stop F in the middle of the woodland commuting soprano pipistrelle and a Leisler's bat were recorded. No more bats were recorded until surveyors reached Eastmead lane and approached stop D where a commuting common pipistrelle was heard. Significant bat activity was recorded between stops B and A with serotine and common pipistrelle making foraging passes.

Date	Type and time	Route	Emergence/Re-entry activity	Observations
17/05/17	Dusk	Online 2	Very faint noctule call heard 20 minutes after sunset at stop I, potentially emerged nearby. Potential soprano pipistrelle emergence from tree in hedgerow close to the spring between stops I and H.	A very faint noctule call was heard 20 minutes after sunset, 1 minute after the surveyors left stop I. It is possible that it was roosting nearby. A noctule was seen looping over the field south of stop I, flying high. The bat was calling so loudly that it could be heard without the detector. A soprano pipistrelle was seen potentially emerging from a tree in the hedgerow near the spring, 30 minutes after sunset. Serotine, lesser horseshoe bat, soprano and common pipistrelle were recorded along the hedgerow in the field east of Camel Hill House between stops H and G. The lesser horseshoe bat was heard 1 minute before the surveyors reached stop G. Serotines and common pipistrelles were recorded foraging at stop G. Near continuous *Pipistrellus sp.* calls were heard between stop G and F. Noctules and a Leisler's bat were heard close to the road on the hedgerow leading up to stop E. Lots of common pipistrelle activity was recorded at stop D. Some common pipistrelle activity was recorded between stop C and B and between stop B and A.
22/05/17	Dusk	Online 1	None	No bats were recorded until surveyors reached the hedgerow leading to stop G where foraging common pipistrelles were recorded. A soprano pipistrelle was recorded along the hedgerow leading up to stop F. Lots of serotine activity was recorded around Howell Hill between stops F and E with a small number of Leisler's bat and common pipistrelle activity also being recorded. A Leisler's bat was also recorded making at pass at stop E. Bat activity was very low for the rest of the survey with *Pipistrellus sp.* being recorded making single passes at stop D and B.
23/05/17	Dusk	Offline 4	None	The first bat recorded was a noctule, 36 minutes after sunset at stop G, along the edge of the fields at Hazlegrove. A serotine was heard just after the surveyors set off from stop G flying along the hedgerow bordering the A303. A Leisler's bat was heard making several passes after stop F around the edge of the woodland. Several soprano pipistrelle, common pipistrelle and *Myotis sp*. passes were recorded after stop E along the strip of woodland east of Pepper Hill Copse. Common pipistrelle and soprano pipistrelle were recorded at stop D and around the edge of the field after this stop foraging. On the second pass of this patch of woodland at stop C *Myotis sp*. and a brown-long eared bat were recorded. Serotine and common pipistrelle were recorded at stop A by Camel Hill Farm.
13/06/17	Dusk	Online 2.1	None	The first recorded bat activity was 55 minutes after sunset. *Pipistrellus sp.* and common pipistrelles were recorded commuting East-West across the road and South-North along the road between stops C and D. A soprano pipistrelle was also recorded foraging along this road. Several passes were made by *Pipistrellus sp.* soon before and after stop D, flying along the road. A Leisler's bat was recorded commuting along the hedgerow beside the road, flying Northwest. A Leisler's bat, serotine, noctule and *Myotis sp.* were recorded commuting along Slate Lane after stop E. Foraging soprano pipistrelles and *Pipistrellus sp.* also made several passes along the lane and at stop G. Activity was low in the fields to the South and the wooded track around stops I and J, with one common pipistrelle recorded over the next 35 minutes. Common pipistrelles and soprano pipistrelles made frequent passes after stop J and a noctule was recorded briefly at the end of the survey.

Date	Type and time	Route	Emergence/Re-entry activity	Observations
14/06/17	Dawn	Online 2.1	None	A common pipistrelle was recorded making a single pass between stops C and D, 36 minutes after the survey start. After stop E, common pipistrelle and soprano pipistrelles were recorded foraging continuously along the woodland track of Slate Lane for several minutes. There was no further bat activity until the survey end.
	Dusk	Offline 4	None	Several soprano pipistrelle passes were recorded along the track just before stop C. Bats were seen flying up and down the track ahead of surveyors whilst foraging. Further soprano pipistrelle activity was recorded after stop C with bats foraging and commuting along the hedgerow by the track. No significant further bat activity was recorded until stop E when Leisler's bats and noctules were recorded making several foraging passes over the stop. A serotine was recorded making a single pass 1 minute before the surveyors reached stop F. Several serotine passes were heard at the base of the woodland at Hazlegrove, 5 minutes before the surveyors reached stop G. Towards the end of the transect continuous foraging by Leisler's bats and noctules was recorded around the streetlights bordering the road.
15/06/17	Dawn	Offline 4	None	Soprano and common pipistrelles were recorded foraging along the transect around the western edge of Pepper Hill Copse between 03:02 and 03:08. Further soprano pipistrelle calls were recorded along the hedgerow north of Pepper Hill Copse either side of stop C. No further bat calls were recorded until the surveyors reached stop E, where soprano pipistrelles were recorded flying along the hedgerow. A *Myotis sp*. was recorded at 03:44 a few minutes before the surveyors reached stop F along with high levels of activity from soprano pipistrelles. Very little activity was recorded after 3:50 and stop F. One soprano pipistrelle call recorded at 04:04 before surveyors reached stop H.
19/06/17	Dusk	Online 1.1	None	Only one bat was recorded prior to stop D, a common pipistrelle which flew along the A303 between stops C and D. At stop D a pipistrelle was recorded making several passes close to the surveyor position. A noctule was recorded making several passes as the surveyors neared Hawk House. At stop E common and soprano pipistrelles were recorded making passes around the surveyor position. Two species of bat, noctule and common pipistrelle, were recorded at stop F. A serotine was recorded at stop I in the field west of Howell Hill.
20/06/17	Dawn	Online 1.1	None	Common pipistrelles and serotines were recorded at stop I in the field west of Howell Hill. A noctule was recorded at stop G flying along the tree-lined public footpath. Several soprano and common pipistrelle calls were recorded between stops E and D in the fields south of Hawk House. No more bats were recorded after stop D.
22/06/17	Dusk	Offline 1	None	A common pipistrelle was recorded commuting North along the hedgerow at stop C. One serotine was recorded commuting after stop D and one whilst at stop E in Annis Hill wood. Activity remained low for the remainder of the survey, with one common pipistrelle recorded along the field edge after stop G and another serotine foraging along the wooded track after stop I.
23/06/17	Dawn	Offline 1	None	Two noctules were recorded either side of stop H, commuting along the field boundary. A brown long-eared bat was recorded at stop E, commuting within Annis Hill wood.

Date	Type and time	Route	Emergence/Re-entry activity	Observations
26/06/17	Dusk	Online 2.2	None	A common pipistrelle was recorded 10 minutes after sunset close to the southern end of Steart Wood. Common and soprano pipistrelles were recorded at the edge of the small copse north of Camel Hill House. A noctule was heard in the field east from stop F. A serotine was heard between stops G and H. Lots of bat activity was recorded towards the end of the survey after stop H, with near continuous activity from several species until the end of the survey. Serotine, noctule, common pipistrelle, soprano pipistrelle, *Myotis sp.* and Leisler's bat were all heard making frequent passes around the edge of the field at Hazlegrove until the end of the survey.
27/06/17	Dawn	Online 2.2	None	Leisler's bat, noctule and common pipistrelle were recorded near continuously between stops J and I, foraging along the hedgerow next to the roundabout. A single brown long-eared bat pass was also recorded. A common pipistrelle was recorded foraging continuously between stop I and H along the eastern edge of the woodland. Between stop H and G foraging noctule, soprano and common pipistrelles were recorded along the hedgerow. A foraging common pipistrelle was briefly heard at stop G and at stop F. A lesser horseshoe bat and soprano pipistrelle were recorded whilst at stop B.
03/07/17	Dusk	Online 1.2	None	No bats were recorded until an hour after sunset. Near constant common and soprano pipistrelle passes and a single *Myotis sp*. pass were recorded between stops D and E in the field north of Eyewell House. A *Myotis sp*. pass was recorded at stop E and around the masts between stop E and F, where a serotine was also recorded. Serotine, common and soprano pipistrelles were all recorded making multiple passes at stop F and continued to be recorded as the surveyors walked along the road to stop G. Noctules and common pipistrelles were recorded between stop H and I at the edge of the field. Noctule, common pipistrelle and serotine were recorded between stop I and J and from stop J to the end of the survey. Common pipistrelles were seen foraging around streetlights at the end of the transect route.
04/07/17	Dawn	Online 1.2	None	Common pipistrelle and brown long-eared bat were heard at the very start of the transect route before stop A. Common pipistrelle passes were recorded at the edge of the field at stop J. At stop H a common pipistrelle was recorded at the edge of the field. A *Myotis sp*. was recorded flying along the road after stop G. A noctule was recorded at stop F commuting along the edge of the MOD field. A *Myotis sp*. was recorded flying along the line of trees in the field north of Eyewell House between stop F and E. No more bats were recorded before the end of the survey.
12/07/17	Dusk	Online 1.2	None	No bats were recorded until an hour after sunset when a soprano pipistrelle was recorded at stop E. Serotine and *Myotis sp*. passes were recorded around the masts between stops E and F. Noctule, common pipistrelle and *Myotis sp*. were recorded along the road between F and G. A *Myotis sp*. was heard commuting across the field between stops G and I. Common pipistrelles were recorded foraging around the streetlights between stop J and the end of the survey.
	Dusk	Online 2.2	None	A noctule and soprano pipistrelle were heard at stop B 16 minutes after sunset flying up the woodland track from the east. Common pipistrelles were heard at stop E and seen flying down the track from south to north. Common pipistrelles were heard around the northern edge of the woodland between

Date	Type and time	Route	Emergence/Re-entry activity	Observations
				stops E and F and a *Myotis sp*. was recorded as the surveyors approved stop F. Lots of serotine activity was recorded around the edges of Pepper Hill Copse and at stop G. Near constant common pipistrelle activity was recorded between stop G and stop H along the hedgerows. Common pipistrelles were also recorded foraging in the fields around Hazlegrove.
13/07/17	Dusk	Online 2.1	None	The first bat was recorded at stop C 35 minutes after sunset with a soprano pipistrelle continually foraging and circling around the hedgerows before flying off west. A common pipistrelle was recorded between stops C and D along the lane by Lyndsay House. A common pipistrelle was recorded whilst the surveyors were stopped at stop E at the bottom of the public footpath by the house. Lots of bat activity was recorded along Slate Lane between stops E and G consisting of *Myotis sp*. and common and soprano pipistrelles. *Myotis sp*. and common pipistrelles were recorded between stops G and H in the fields south of Slate Lane. A single noctule pass was recorded at stop H. A serotine was recorded between stop H and stop I. Between stop I and the end of the survey common pipistrelles and a noctule were recorded flying along Slate Lane.
	Dusk	Offline 4	None	A common pipistrelle was the first bat recorded 21 minutes after sunset commuting west along the hedgerow towards Pepper Hill Copse. A foraging common pipistrelle was recorded making multiple passes along the edge of the woodland leading up to stop C. Noctule, common and soprano pipistrelle were recorded commuting and foraging in the large field along the hedgerow between stops C and D. On the second pass along the edge of the woodland between stops D and E multiple common and soprano pipistrelle passes were recorded. Serotine and common pipistrelle were heard around the edge of the woodland between stops E and F. Common pipistrelle and noctule were heard between stops F and G foraging along the side of the A303. Serotine, noctule and common pipistrelle were recorded frequently in the fields at Hazlegrove from stop G until the end of the survey.
18/07/17	Dusk	Offline 1	None	The first bat recorded was a soprano pipistrelle 26 minutes after sunset which was heard as the surveyors walked along the road between stop A and B. A common pipistrelle was heard as the surveyors approached stop B feeding and flying up and down the tree line along the road before the bridge. Frequent common pipistrelle passes were heard at stop B with bats flying up and down the road south to north. A high level of common pipistrelle activity was recorded as surveyors walked along the drain parallel to the A303 between stops B and C. Between these stops Leisler's bat, soprano pipistrelle and noctule were also recorded. Several serotine passes were recorded between stops C and D on Eastmead Lane. Serotine and soprano pipistrelle were recorded foraging between stops D and E in the fields south of Annis Hill. Frequent soprano pipistrelle passes were recorded at stop F in the middle of Annis Hill woodland. No further bats were recorded until stop I when a serotine pass was recorded close to Newclose farm.
19/07/17	Dusk	Online 1.1	None	Noctules and common pipistrelles were recorded along the hedgerow between stops B and C in the field north of the air base. Serotine and common pipistrelle were recorded along the A303 between stops C and D. A Leisler's bat was heard at stop D but not seen by the surveyors. Barbastelle was

Date	Type and time	Route	Emergence/Re-entry activity	Observations
				recorded along the hedgerow to the south-east of Hawk House, between stops D and E. Very few bats were heard after stop E with a single soprano pipistrelle pass recorded at stop I in the field west of Howell Hill.
01/08/17	Dusk	Online 1.2	None	The first bat recorded was a common pipistrelle between stop I and H 30 minutes after sunset. Several common pipistrelle and serotine passes were recorded at stop G. Several lesser horseshoe bat passes were heard after stop G within Ridge Copse. *Myotis sp*., common pipistrelle and lesser horseshoe bat calls were also recorded along the road between stops G and F. Lesser horseshoe bat and common pipistrelle passes were also recorded around the masts. Serotine and Leisler's bat were recorded in the field north of Eyewell house between stop E and D. Serotine and a single lesser horseshoe bat call were recorded in the fields between stops D and B along the hedgerow and A303. Serotine, lesser horseshoe bat, common and soprano pipistrelle were recorded in the field around Conygore towards the end of the survey between stop A and the end point of the transect.
02/08/17	Dusk	Online 2.1	None	No bats heard until 21:57 when a foraging common pipistrelle was seen inside the wooded path on Slate Lane. A serotine was heard at stop D and another serotine was heard at stop C. Only one other bat was heard after this time at 23:49 and was a common pipistrelle on Downhead Lane.
	Dusk	Offline 1	None	A common pipistrelle was the first bat recorded 30 minutes after sunset at stop H. Several common pipistrelle calls were recorded as the surveyors walked from stop H along the hedgerow towards Annis Hill. Common pipistrelles were heard frequently commuting inside and around the edge of Annis Hill woodland. A Leisler's bat pass was recorded as the surveyors walked along the wet ditch parallel to the A303 between stops C and B. Common and soprano pipistrelles and Leisler's bat were recorded between stop A and the end of the survey.
	Dusk	Offline 4	None	A soprano pipistrelle was the first bat recorded 20 minutes after sunset with a foraging common pipistrelle heard four minutes later at stop G foraging over the park land towards the north. A soprano pipistrelle was heard commuting at stop D at the corner of the field by a small patch of trees. A Leisler's bat was recorded commuting at stop B along the edge of Pepper Hill Copse. Brown long-eared bat *and Pipistrellus sp.* were heard commuting around the edge of Camel Hill Farm along the hedgerow. Two lesser horseshoe bat passes were recorded at stop B and further along the transect route at the edge of Pepper Hill Copse.
03/08/17	Dusk	Online 2.2	None	No bats were recorded until approximately 40 minutes after sunset. Common and soprano pipistrelles were heard foraging along the hedgerows between stops H and G. A *Myotis sp*. was heard as surveyors approached stop F and several further passes were heard at the stop. Common pipistrelles were seen commuting along the track near stop E. Between stops C and B common pipistrelles were recorded flying along the track south of Steart Wood. A serotine and soprano pipistrelle were recorded at stop A.
14/08/17	Dusk	Online 1.1	None	Four different species of bat were recorded in the fields between stops I and H, noctule, *Myotis sp*., common and soprano pipistrelle. Serotine and common pipistrelle were recorded along the field

Date	Type and time	Route	Emergence/Re-entry activity	Observations
				boundaries between stop H and G and in the tree-lined public footpath after stop G. Leisler's bat, noctule and soprano pipistrelle were recorded at stop F close to the A303. Serotine and brown long-eared bat were recorded at stop E along the A303 in the field east of Hawk House. A large amount of soprano and common pipistrelle activity was recorded in the fields between stop E and D. No other bats were recorded after this point in the transect apart from a single serotine pass along the A303 between stops D and C.
04/09/17	Dusk	Online 1.1	None	Noctules and common pipistrelles were recorded flying along the hedgerow and wet ditch between stops B and C at 20/30 minutes after sunset. Serotine and common pipistrelles were recorded flying along the A303 between stops C and D. Serotine, *Myotis sp*. and *Pipistrellus sp*. were recorded at stop D at the edge of the woodland and the road. Leisler bat, serotine, brown long-eared bat and noctule passes were recorded in the fields south of Hawk House between stops D and E. Brown long-eared bat, serotine and common pipistrelle were recorded between stops E and F. A large number of serotine and *Pipistrellus sp*. calls were recorded in the tree-lined public footpath in the woodland between F and G. Several *Myotis sp*. passes were recorded at stop H. Common and soprano pipistrelles were recorded in the cow fields west of Howell Hill and a serotine was recorded at stop J.
	Dusk	Online 1.2	None	A common pipistrelle was recorded 20 minutes after sunset between stops B and C. Common and soprano pipistrelles were heard along the hedgerows between stops C and D. *Myotis sp*., serotine and common pipistrelle were heard making frequent passes in the field north of Eyewell House between stops D and E. Serotine, brown long-eared bat and soprano and common pipistrelle were recorded between stops E and F around the MOD masts. Serotine, common pipistrelle and noctule were recorded between stop F and G along the road. A serotine was recorded between stop G and H at the edge of Ridge Copse. Noctule, soprano and common pipistrelle were recorded between stop H and I in the field south of the Hazlegrove roundabout and were heard frequently passing surveyors until the end of the survey.
05/09/17	Dusk	Online 2.1	None	A soprano pipistrelle was the first bat recorded 30 minutes after sunset between stop B and C flying along the road. Another soprano pipistrelle was heard as the surveyors were leaving stop C. Between stop C and stop D soprano pipistrelles, noctules and serotines were recorded flying along the road and fields around Downhead Manor Farm. No more bats were heard until after surveyors had left stop F to continue along Slate Lane. Common pipistrelle and *Myotis sp*. were heard flying along Slate Lane. Common and soprano pipistrelles were heard in the fields south of Slate Lane between stop G and stop H. Lots of common pipistrelle activity was recorded between stop I and J along the hedgerow. Between stop J and the end of the transect *Myotis sp*. and common pipistrelles were heard flying along Slate Lane.
	Dusk	Online 2.2	None	A noctule was heard 20 minutes after sunset on the track west of Steart Wood before stop B. Soprano pipistrelle and lesser horseshoe bat were recorded making several passes over the surveyor location at stop B. Lesser horseshoe bat, common pipistrelle and *Myotis sp*. were heard along the woodland

Date	Type and time	Route	Emergence/Re-entry activity	Observations
				track between stop B and C. A single noctule pass was recorded as surveyors neared stop D. A serotine was heard around Camel Hill Farm between stops D and E. Several common pipistrelle calls were heard around the woodland north of Camel Hill House before stop F. Common pipistrelle calls were recorded along the hedgerow as surveyors moved between stops G and I. Serotine, *Myotis sp*. and soprano pipistrelle were recorded in the fields and woodland edge at Hazlegrove.
06/09/17	Dusk	Offline 1	None	A common pipistrelle was heard 19 minutes after sunset making several foraging passes over the treeline near the bridge. A single *Pipistrellus sp*. was heard commuting between stops B and C along the wet ditch parallel to the A303. A barbastelle was heard commuting as the surveyors approached stop D on Eastmead Lane. At stop E centre of Annis Hill wood a common pipistrelle was heard making several foraging passes. A brown long-eared bat was heard commuting whilst stood at stop H at the edge of the woodland and common and soprano pipistrelles and barbastelles were also recorded flying around inside and at the edge of the woodland. For the last hour of the survey no recordings were made and the stop letters recorded by the surveyors became confused, so it was not possible to determine bat activity during the last hour of the survey.
	Dusk	Offline 4	None	A soprano pipistrelle was the first bat recorded 27 minutes after sunset between stop B and C along the edge of the strip of woodland. *Myotis sp*. and common pipistrelles were recorded around the edge of the field boundary between stops C and D. Soprano pipistrelle and *Myotis sp*. were recorded between stop D and E along the western edge of the strip of woodland. A common pipistrelle was recorded at stop E and noctule, Leisler's bat and soprano pipistrelle recorded between stop E and F. Brown long-eared bat, Leisler's bat, common pipistrelle and soprano pipistrelle were recorded between stop F and G around the edge of the woodland and fields at Hazlegrove bounding the A303. After stop H soprano pipistrelles were recorded making brief passes over the fields at Hazlegrove.
02/10/17	Dusk	Online 1.1	None	A common pipistrelle was recorded making several circling passes over stop G. Common pipistrelle and *Myotis sp.* were also recorded in tree-lined along the public footpath between stops G and F. No more bats were heard on the transect until between stop A and the end of the transect where a Leisler's bat and soprano pipistrelle were recorded.
	Dusk	Online 1.2	None	A common pipistrelle was recorded 30 minutes after sunset making several passes at stop H. A soprano pipistrelle made a single pass as surveyors neared stop G. A serotine was heard at stop G within Ridge Copse. *Myotis sp*. and common pipistrelle were recorded between stop G and F. Common pipistrelle and serotine were recorded between stop F and D between the MOD masts. A M*yotis sp*. was heard making a commuting pass as surveyors left stop B in the field east of Conygore.
	Dusk	Offline 1	None	A common pipistrelle was recorded 30 minutes after sunset between stop F and G along the hedgerow leading to Annis Hill wood. Soprano and common pipistrelles were recorded foraging in a circular pattern along the hedgerow and the surveyors walked between stops G and H. At stop H at the edge of Annis Hill wood common pipistrelles and serotine were recorded passing the stop. A soprano pipistrelle was heard between stop E and D along the edge of the woodland making a single

Date	Type and time	Route	Emergence/Re-entry activity	Observations
				pass. Several common pipistrelle foraging passes were recorded in the fields south of Annis Hill along the hedgerow between stops D and C. Continuous soprano pipistrelle foraging activity was recorded in the final field of the transect route with occasional common pipistrelle passes.
04/10/17	Dusk	Online 2.1	None	The first bat recorded was a serotine 48 minutes after sunset which was heard commuting as the surveyors approached stop I along the hedgerow. At stop H a noctule was recorded foraging close to the A303 with another pass being recorded between stop H and stop G. Lots of common pipistrelle and soprano pipistrelle foraging passes were recorded along Slate Lane between stop G and stop F. Serotine and *Myotis sp*. were recorded between stops B and A around the outside of the field.
	Dusk	Online 2.2	None	No bats were recorded until 30 minutes after sunset when the surveyors were moving between stops H and G and multiple soprano and common pipistrelle passes were recorded. Serotines and *Myotis sp*. were recorded at stop F circling the woodland north of Camel Hill House. Several common pipistrelle passes were recorded between stops C and B. Near continuous common pipistrelle passes were recorded between stop B and the end of the survey.
05/10/17	Dusk	Offline 4	Possible emergence of two soprano pipistrelles from a hedgerow near stop J at 19:02.	The first bats to be recorded were 2 soprano pipistrelles foraging up and down the hedgerow just after the surveyors left stop J 22 minutes after sunset. It was possible that these bats emerged from a tree in the hedgerow at stop J but the surveyor was not certain. A common pipistrelle was recorded circling and foraging at stop I 34 minutes after sunset. Lots of common and soprano pipistrelle activity was recorded between stops I and H around the streetlights and the bottom corner of the woodland near the roundabout. No further bat activity was recorded until between stop D and stop C where a faint common pipistrelle call and a single commuting soprano pipistrelle call was recorded.

F.4 Crossing point results

Table F.13: Summary of survey conditions for crossing points

Crossing point ID	Survey type	Sunrise/ Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
CP1	Dusk	21:15	17/07/17	21:15	22:45	20 to 16	0	75	Dry
	Dawn	05:36	01/08/17	04:06	05:36	14 to 10	0	75	Dry
	Dawn	06:11	24/08/17	04:47	06:11	16 to 15	0	10	Dry
	Dusk	19:57	31/08/17	19:57	21:27	16 to 14	0	60 to 90	Dry
	Dawn	06:41	12/09/17	05:13	06:41	13	11	70 to 100	Dry
	Dusk	19:15	19/09/17	19:15	20:45	14 to 13	0	75 to 100	Dry
CP2	Dusk	21:13	20/07/17	21:13	22:45	18 to 16	2	90	Dry
	Dawn	05:39	03/08/17	04:09	05:39	16 to 15	14	15 to 100	Dry

Crossing point ID	Survey type	Sunrise/ Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
CP3	Dusk	21:05	27/07/17	21:05	22:35	19 to 15	F1 to F3	40 to 90	Dry
	Dawn	05:46	08/08/17	04:16	05:46	14 to 15	0	20	Light rain
	Dusk	19:33	11/09/17	19:33	21:03	15 to 14	4 to 1	100 to 30	Drizzle to dry
	Dawn	06:51	19/09/17	05:21	06:51	8 to 6	0	10	Dry
	Dawn	07:02	26/09/17	05:32	07:02	18	0	100	Dry
	Dusk	18:45	03/10/17	18:45	20:15	15 to 10	2 to 1	60 to 10	Dry
CP4	Dusk	21:17	17/07/17	21:17	22:47	20 to 16	0	75	Dry
	Dawn	05:36	01/08/17	04:03	05:36	17 to 18	1 to 3	100	Light rain
CP5	Dusk	21:15	20/07/17	21:15	22:45	18 to 16	2	90	Dry
	Dawn	05:36	01/08/17	04:06	05:36	17	0	0	Dry
	Dusk	19:33	11/09/17	19:33	21:03	14 to 13	13 to 10	100	Heavy to dry
	Dusk	19:17	18/09/17	19:17	20:47	16	F1	50 to 90	Dry to light
	Dawn	07:02	26/09/17	05:33	07:02	13 to 14	2	100	Dry
	Dusk	18:45	03/10/17	18:45	20:15	12 to 10	0	60 to 80	Dry
CP6	Dusk	21:12	20/07/17	21:12	22:42	17 to 16	1	60 to 70	Dry
	Dawn	05:37	02/08/17	04:07	05:37	16 to 15	F3 to F2	100	Light rain to heavy
	Dusk	20:12	24/08/17	20:12	21:42	17 to 16	0	80 to 75	Dry
	Dawn	06:22	31/08/17	04:52	06:22	10 to 12	0	0 to 25	Dry
	Dawn	06:41	12/09/17	05:11	06:41	11	1	90 to 60	Light to dry
	Dusk	19:10	21/09/17	19:10	20:40	12 to 10	1	40 to 70	Dry
CP7	Dusk	21:15	20/07/17	21:15	22:45	16 to 15	7	70 to 90	Dry
	Dawn	05:39	03/08/17	04:09	05:39	16 to 15	14 to 10	15 to 100	Dry
CP8	Dusk	21:09	24/07/17	21:09	22:39	19 to 16	F2	20 to 30	Dry
	Dawn	20:34	14/08/17	20:34	22:04	16 to 15	2	95	Dry
	Dusk	20:13	24/08/17	20:13	21:43	17 to 15	0	100	Dry
	Dawn	06:20	31/08/17	04:50	06:20	10	2	60	Dry
	Dusk	19:31	12/09/17	19:31	21:01	14	37 to 32	100	Light rain
	Dawn	06:53	20/09/17	05:23	06:53	10 to 9	F1	30 to 40	Dry
CP9	Dawn	05:24	25/07/17	03:54	05:24	13 to 14	F1	15 to 25	Dry
	Dusk	20:47	07/08/17	20:47	22:17	17 to 16	0	20	Light rain
CP10	Dusk	21:09	24/07/17	21:09	22:39	18 to 16	0	20	Dry
	Dawn	05:51	11/08/17	04:21	05:51	11 to 9	0	0	Dry
CP11	Dawn	05:26	25/07/17	03:56	05:26	13	0	20	Dry, fog

Crossing point ID	Survey type	Sunrise/ Sunset Time	Survey Date	Start Time	End Time	Temp (°C)	Wind	Cloud (%)	Conditions
	Dawn	20:33	15/08/17	20:33	22:03	16 to 14	0	30 to 10	Dry
	Dawn	06:12	25/08/17	04:41	06:12	10 to 11	0	0 to 5	Dry
	Dusk	20:30	31/08/17	20:00	21:30	12	1	50 to 60	Dry
	Dusk	19:31	12/09/17	19:31	21:01	12 to 13	4	100	Light rain
	Dusk	19:12	20/09/17	19:12	20:42	14	1 to 2	90 to 100	Light rain

Table F.14: Summary of bat activity associated with crossing point surveys

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
CP1	17/07/17	Dusk 21:15	None seen	Noctule heard 43 minutes after sunset	108	Noctule seen foraging along the hedge line. Five passes back and forth between corner of hedgerow south-west to south-east Soprano pipistrelle foraging 2.5m along hedge line in a north-east direction at 22:02 Brown long-eared bat, one pass 3m above road in south-east direction at 22:06 Common pipistrelle at least six passes at 22:11 Leisler's bat noctule foraging 2.4m above road along hedgerow in north-east direction before flying towards road and back
	01/08/17	Dawn 05:36	None seen	N/A	3	Common pipistrelle heard but not seen between 04:26 and 04:30.
	24/08/17	Dawn 06:11	None seen	N/A	8	Brown long-eared see flying north to south over the hedge at 04:58 before seen foraging in front of surveyors at 05:03 before flying in a north direction. Myotis sp. seen flying over the hedge north to south-west at 05:07, 64 minutes before dawn. Serotine was seen flying towards surveyors in a south direction, foraging, and then flying north over the hedge at 05:24.
	31/08/17	Dusk 19:57	None seen	Soprano pipistrelle heard 23 minutes after sunset Common pipistrelle heard 25 minutes after sunset	143	Continuous foraging and commuting of soprano pipistrelle from 20:20 to 20:40. Over hedge in south-east direction, west across field, and continuously between crossing hedge and field Some common pipistrelle calls in between soprano pipistrelle between 20:22 and 20:36. Foraging before flying

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
				Brown long-eared bat heard 49 minutes after sunset		north-west over adjacent hedge before crossing the hedge. Would fly across the field in eastern direction Brown long-eared bat foraging before flying west following the hedgerow at 20:46 Noctule heard at 21:14 Serotine heard at 21:22
	12/09/17	Dawn 06:41	None seen	N/A	1	Soprano pipistrelle heard but not seen at 05:59, 42 minutes before dawn.
	19/09/17	Dusk 19:15	None seen	Soprano pipistrelle seen 19 minutes after sunset Common pipistrelle heard 27 minutes after sunset	43	Soprano pipistrelle flying along hedgerow in south-east and north-east direction approximately 3-4.5m above road between 19:34 and 19:40 Myotis sp. heard not seen Intermittent foraging and commuting of common pipistrelle along the hedgerow before flying over the hedgerow in a north-east direction at 19:42, 19:53 and 20:28 Serotine flew over hedgerow and then crossed at north-east corner at 19:51. Flew north-east then south-east along hedgerow at 20:05. Heard at 20:25 Leisler's bat noctule quick pass at 20:00
CP2	20/07/17	Dusk 21:13	None seen		1	Brown long-eared bat heard at 22:39
	03/08/17	Dawn 05:39	None seen	N/A	3	Common pipistrelle heard for three passes at 04:11. No other activity seen or heard.
CP3	27/07/17	Dusk 21:05	None seen	Noctule heard 18 minutes after sunset Common pipistrelle seen 18 minutes after sunset	100	Noctule heard only once at 21:23 Continuous passes from common pipistrelle starting at 21:27 and then intermittently until 22:29. Foraging along path 4m above road in north direction first, then south at 21:46. Continuous passes in north to south direction.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
				Soprano pipistrelle seen 34 minutes after sunset Brown long-eared bat seen 48 minutes after sunset – approximately 12 minutes earlier than normal		Soprano pipistrelle seen 4m above road flying between north and south at 21:49. Sustained foraging between 22:30 and 22:32 Four passes of brown long-eared bat at 21:53, 22:11, 22:15 and 22:32. Leisler's bat noctule heard at 22:22
	08/08/17	Dawn 05:46	None seen	N/A	8	Noctule heard but not seen at 04:56, 50 minutes before dawn. Lesser horseshoe bat heard but not seen between 04:59 and 05:1, 47 minutes before dawn.
	11/09/17	Dusk 19:33	None seen	Brown long-eared bat heard at 20:30	24	Common pipistrelle foraging south to north on the east side of feature 7m above road. First heard at 20:24 and continuously until 20:45. Brown long-eared bat heard between 20:30 and 20:34. Foraging 5m above road on the eastern side
	19/09/17	Dawn 06:51	None seen	N/A	2	Two passes of common pipistrelle at 05:33. Not seen.
	26/09/17	Dawn 07:02	None seen	N/A	26	Common pipistrelle first heard at 05:51 and then continuously throughout the survey from 06:20 until 06:32. At least 23 passes. One common pipistrelle was seen within these passes at 06:21 flying east, and at 06:27 flying north. Soprano pipistrelle heard at 05:59 for one pass. Noctule heard for one pass at 06:36.
	03/10/17	Dusk 18:45	None seen		114	Six passes of common pipistrelle at 19:26, one pass at 19:45, one pass at 19:56. Serotine continuous from 19:28 to 20:14 when last bat heard.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
						Noctule single pass at 19:37 Three Myotis sp. passes between 19:38 and 19:40 Leisler's bat noctule passing three times at 19:41
CP4	17/07/17	Dusk 21:17	None seen	Pipistrelle species heard 21 minutes after sunset Lesser horseshoe bat heard 22 minutes after sunset	Unknown	Pipistrellus sp. seen 10m above the road flying in a north to south direction at 21:38 Lesser horseshoe bat seen 6m above the road travelling in a west to east direction 21:39 to 22:05. Seen but not heard between 22:12 and 22:44 Noctule heard at 21:42, 21:47, 22:15. Seen continuously foraging at 22:26 1m above the road in a north to south direction Serotine seen 5m above the road flying in an east to west direction up the track at 21:57 to 21:58
	01/08/17	Dawn 05:36	None seen	N/A	16	Common pipistrelle heard for one pass at 04:07 and again at 04:48 until 05:09 where at least 8 passes were heard. Bats were seen between 04:59 and 05:05 flying around the hedge. At least two bats seen together. Brown long-eared heard at 04:21, and seen flying east to west and then west to east between 04:44 and 04:46 for at least four passes. Soprano pipistrelle heard but not seen at 04:49 and 05:14.
CP5	18/07/17	Dusk 21:15	None seen	Soprano pipistrelle recorded 13 minutes after sunset. Myotis sp. Recorded 25 minutes after sunset.	77	Soprano pipistrelle heard but not seen continuously from 21:28 until 21:36. Flying 2 to 4 m above the ground at 21:36. Myotis sp. Heard consistently from 21:40 until 21:44.
	01/08/17	Dawn 05:36	None seen	N/A	60	

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
	11/09/17	Dusk 19:33	None seen	Soprano pipistrelle seen 9 minutes after sunset – usually seen 30 minutes after sunset Lesser horseshoe bat heard 19 minutes after sunset	11	Soprano pipistrelle circling and flying east at 19:42 5m above the ground Lesser horseshoe bat heard continuously from 19:52 to 20:02 Noctule heard at 19:53 Common pipistrelle heard at 20:35
	18/09/17	Dusk 19:17	None seen	Common pipistrelle heard between 10 and 22 minutes after sunset	11	Common pipistrelle heard but not seen between 19:27 and 19:39.
	26/09/17	Dawn 07:02	None seen	N/A	7	Myotis sp. heard but not seen at 05:45. Soprano pipistrelle heard between 05:47 and 05:51. Seen at 05:55 flying east to west approximately 6m above the ground. Noctule heard at 06:02. Common pipistrelle heard at 06:04.
	03/10/17	Dusk 18:45	None seen	Soprano pipistrelle heard 29 minutes after sunset Lesser horseshoe bat heard 31 minutes after sunset Common pipistrelle heard 35 minutes after sunset – 5 minutes later than usual	88	Soprano pipistrelle heard only once at 19:14 Lesser horseshoe bat heard only once at 19:16 Common pipistrelle heard but not seen from 19:20 until 19:29, and 19:44 until 19:51, and foraging between 20:04 to 20:09 Serotine heard not seen at 19:42 and 19:55 until 20:00
CP6	20/07/17	Dusk 21:12	None seen	Common pipistrelle heard 37 minutes after sunset – 7 minutes later than usual	29	Common pipistrelle seen foraging north to south along hedge towards A303, 2m above the ground on the right side of the hedge. Seen flying over the adjacent field before crossing the hedge east to west at 22:20 and 22:22.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
				Myotis sp. heard 51 minutes after sunset – within the boundary of 40 – 70 minutes that Myotis are usually heard		Noctule heard but not seen at 21:51 for the first time. Foraging heard at 21:53 to 21:55. Soprano pipistrelle seen crossing the hedge on the western side, and flying north to south like the common pipistrelle. SNH flew over the hedge from west to east and then north over the road at 22:00 approximately 4m above the road. Myotis sp. seen at 22:03 flying 1m above the road, flying north to south towards the A303. Foraging for one quick pass. Continuous Myotis between 22:08 to 22:28 flying north to south and west over the hedge. BLE seen commuting for one quick pass in a northern direction at 22:05
	02/08/17	Dawn 05:37	None seen	N/A	9	Soprano pipistrelle heard at 04:20. Leisler's bat noctule heard at 04:23. Brown long-eared heard between 04:23 and 04:33 for three passes and then again at 04:40. One of common pipistrelle heard at 04:33. Two bats, one pass each, at 04:39 seen flying over surveyors in a southern direction.
	24/08/17	Dusk 20:12	None seen	Soprano pipistrelle heard 27 minutes after sunset BLE heard 40 minutes after sunset	107	Soprano pipistrelle heard not seen between 20:39 and 20:51 continuously. Heard foraging at 21:19 at end of survey BLE seen flying east to west over the hedge at 20:52. Flying approximately 1.5m above the road. Common pipistrelle heard and seen continuously throughout the survey. Flew north to south foraging along the hedge continuously between 21:00 and 21:03. Flying

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
						west over the hedge. Continuous foraging started again at 21:06 until 21:14. Flying in the same north to south to north direction Serotine flying above surveyors and towards the A303 in a north direction at 20:59 only. Three passes of Myotis flying north to south from the A303 and then west over the hedge at 21:04 and between 21:09 and 21:10.
	31/08/17	Dawn 06:22	None seen	N/A	1	Myotis sp. heard at 05:00 for one pass.
	12/09/17	Dawn 06:41	None seen	N/A	86	Soprano pipistrelle seen consistently foraging along hedgerow and in field, crossing from north to south, between 05:38 and 06:06 for at least 85 passes. Brown long-eared heard at 05:48 for one pass. One pass of common pipistrelle heard at 05:52.
	21/09/17	Dusk 19:10	None seen	Soprano pipistrelle heard 29 minutes after sunset Common pipistrelle head 36 minutes after sunset – 6 minutes later than usual Myotis first heard 62 minutes after sunset	13	Soprano pipistrelle seen at 19:39/40 and 19:50. Flying over the hedge and then past surveyors along the hedgerow. Two bats seen at 19:40 flying in the same way as the first bat seen in a south west direction. Flying along the hedgerow at 19:50 again in an east direction. Common pipistrelle seen only at 19:46 flying past surveyors in a north-east direction towards the A303. Myotis sp. flying towards the A303 in a north-east direction first at 20:12. Seen flying back from the A303 in a south west direction at 20:22 and straight back towards north at 20:22. Heard not seen for the following 4 minutes. Serotine heard not seen at 20:34

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
CP7	20/07/17	Dusk 21:17	None seen	Common pipistrelle heard 28 minutes after sunset Soprano pipistrelle heard 33 minutes after sunset Myotis sp. heard 56 after sunset	Unknown	Common pipistrelle seen flying in a southern direction at 21:45, then south to north at 21:54. Heard but not seen at 22:35. Soprano pipistrelle heard but not seen at 21:50. Serotine seen flying south-east to north-west 20m above the road at 22:09. Heard again at 22:28 and 22:43. Myotis sp. seen flying north to south 3m above the ground at 22:21
	03/08/17	Dawn 05:39	None seen	N/A	2	Common pipistrelle heard for one pass at 04:15. Leisler's bat noctule heard for one pass at 04:27.
CP8	24/07/17	Dusk 21:09	None seen	Species heard after their respected times	18	Common pipistrelle continuously heard between 21:48 and 22:08. Flying consistently at 2-3m above the road. Commuting through gap in the hedge in an easterly direction. Finally foraging through the gap in a western direction at 22:08. Soprano pipistrelle seen once commuting through the gap in the hedge in an easterly direction, like the common pipistrelle, at 21:49. BLE seen flying in an eastern direction at 22:07. Not seen at 22:17 and 22:32. Serotine heard as a distant call at 22:28.
	14/08/17	Dawn 20:34	None seen	N/A	Unknown	Common pipistrelle seen from 20:50 until 21:10. Flying from east to west across hedgerow, circling in a western direction, and constant flying north to south along the hedgerow. Noctule seen flying west to east at 21:24.
	24/08/17	Dusk 20:13	None seen	Common pipistrelle heard 16 minutes after sunset – slightly earlier than normal	124	Common pipistrelle heard continuously from 20:29 to 21:26 with other species. Foraging along the hedge to the west

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
						along the north side. Flying between 3 and 5m above the road. Noctule heard not seen at 20:34, 21:13 and 21:21. BLE possibly heard and seen foraging along the hedge to the west at 20:52 Serotines and big bats heard between 21:23 and 21:31.
	31/08/17	Dawn 06:20	None seen	N/A	17	Two passes on Myotis sp. heard between 04:56 and 05:09. At least eight passes of soprano pipistrelle heard between 05:23 and 05:30. Once more again at 05:39 for one pass. Common pipistrelle heard for two passes at 05:37 and 05:48. Three passes of noctule heard from 05:52 to 05:53 and one pass at 06:01.
	12/09/17	Dusk 19:31	None seen		2	Noctule heard at 20:02 BLE heard at 20:50.
	20/09/17	Dawn 06:53	None seen	N/A	50	Soprano pipistrelle heard for three passes at 05:36, and one pass at 05:54, and five passes at 06:13. Common pipistrelle heard for one pass at 05:39 and then consistently from 05:54 to 06:10. Seen at 06:07 flying from north to south 5m high. Seen at 06:18 flying west to east 8m high. One final pass heard at 06:29. Myotis sp. heard for two passes at 05:40 and another two passes at 05:52. Brown long-eared heard for three passes between 05:40 and 05:46.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
CP9	25/07/17	Dawn 05:24	None seen	N/A	Unknown	Common pipistrelle heard but not seen from 04:00 until 04:45. Foraging at 04:07 and 04:25.
	07/08/17	Dusk 20:47	None seen	No bats heard within their time frames	Unknown	No bats seen just heard Noctule heard at 22:04 Serotine heard at 22:05 Common pipistrelle heard between 22:05 and 22:10
CP10	24/07/17	Dusk 21:09	None seen	Only common pipistrelles were heard. First time was 53 minutes after sunset – 23 minutes later than usual.	Unknown	Common pipistrelle seen commuting north to south 5m above the road at 22:02. Two minutes later, two bats were seen foraging repeatedly between the north and south and at 22:10. At 22:05, a single bat was seen foraging from the south end to the north. Between 22:24 and 22:25, common pips were flying between 5 and 7m high from south to north and then north to south.
	11/08/17	Dawn 05:51	None seen	N/A	Unknown	Soprano pipistrelle heard but not seen for at least one pass each at 04:34 and 04:57.
CP11	25/07/17	Dawn 05:26	None seen	N/A	43	Myotis sp. seen foraging whilst circling north to south 2m high at 04:01 for at least six passes until 04:03. Two more passes at 04:04. Soprano pipistrelle heard for a single pass at 04:04. Common pipistrelle heard for at least 26 passes between 04:06 and 04:38. Bat seen commuting from north to south to east at 04:16 before commuting only north to south at 04:28. Brown long-eared for one pass at 04:07, one pass at 04:16, and social calling at 04:27. Two noctule passes heard at 04:44.
	15/08/17	Dusk 20:33	None seen	Common pipistrelle seen 25 minutes after sunset	58	Soprano pipistrelle heard intermittently throughout the survey from one pass at 20:57, one pass at 21:23, and a final pass at 22:04.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
				Noctule heard 27 minutes after sunset Brown long-eared heard 52 minutes after sunset		Common pipistrelle seen foraging in a circular direction around surveyors between 20:57 and 21:00 for at least 16 passes. A further six passes at 21:12 when bats were heard foraging. Sixteen passes from 21:24 to 21:38. Six passes of noctule between 21:00 and 21:05. One single pass at 21:24. Single pass of serotine at 21:16. One pass of brown long-eared at 21:16 and four passes at 21:25. Final pass at 21:45. Leisler's bat noctule heard at 22:03.
	25/08/17	Dawn 06:12	None seen	N/A	39	Noctule heard for one pass at 04:41 Myotis sp. heard at 04:43, 04:47, two passes at 04:51, and a final pass at 05:05. Intermittently for 22 minutes. Common pipistrelle heard foraging for two passes at 04:45, and then intermittently from 04:56 until 05:13. Foraging south to north at 04:46 and 04:51. Soprano pipistrelle heard for two passes at 05:07, 05:10, and then seen foraging from 05:13 to 05:16. Final pass at 05:33.
	31/08/17	Dusk 19:59	None seen	Soprano pipistrelle heard 31 minutes after sunset Common pipistrelle heard 34 minutes after sunset – four minutes later than usual	56	Soprano pipistrelle only seen once flying from east to west at 20:30. A soprano pip was heard but not seen again at 21:24. Noctule was heard at 20:31 and then 46 minutes later between 21:17 and 21:25. A noctule was never seen.

Crossing point	Date	Survey type and time	Roost activity	First recorded activity after dusk	Total number of passes	Description of activity
				BLE heard 60 minutes after sunset		Common pipistrelle heard at 20:33/34 and 21:13/14 approximately half an hour and 45 minutes after sunset. Serotine seen only once foraging above and along the tree line at 20:44. BLE heard continuously for three minutes between 20:59 and 21:02.
	12/09/17	Dusk 19:31	None seen	Soprano pipistrelle heard 28 minutes after sunset	2	Soprano pipistrelle was the only bat heard. This occurred at 19:59.
	20/09/17	Dusk 19:12	None seen	Common pipistrelle heard 19 minutes after sunset BLE heard 41 minutes after sunset – approximately 19 minutes earlier than usual	26	Common pipistrelle first seen at 19:31 flying along the treeline approximately 3m above the road in a north-eastern direction. From then, it was heard but not seen continuously until 19:43. At 19:50, a common pipistrelle was seen again flying over the field following the treeline in a north-eastern direction. A serotine was seen flying over the treeline in a north-eastern direction, 4m above the road at 19:47 and heard again at 20:30. A noctule was heard but not seen for the only time at 19:51. A brown long-eared bat was seen at 19:53 flying south over the surveyors approximately 2m above the ground. It was heard again at 19:58 but not seen.

F.5 Static results

Table F.15: Summary of bat activity associated with static recorders

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
Offline 1a	April	19/04/17	20:14	Soprano pipistrelle recorded 30 minutes after sunset	Soprano pipistrelle Common pipistrelle	16	Soprano pipistrelle (1) Common pipistrelle (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp. Noctule		Pipistrellus sp. (2) Noctule (1)
		20/04/17	20:16	None recorded within limit	Unknown Leisler's bat Common pipistrelle Noctule	15	Unknown (3) Leisler's bat (3) Common pipistrelle (7) Noctule (1)
		21/04/17	20:18	None recorded within limit	Serotine Noctule Unknown Common pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp.	45	Serotine (24) Noctule (1) Unknown (1) Common pipistrelle (1) Myotis sp. (3) Leisler's bat (2) Serotine/Nyctalus sp. (9)
		22/04/17	20:19	None recorded within limit	Unknown Serotine Serotine/Nyctalus sp. Common pipistrelle	11	Unknown (1) Serotine (8) Serotine/Nyctalus sp. (1) Common pipistrelle (1)
		23/04/17	20:21	Common pipistrelle recorded 48 minutes after sunset.	Common pipistrelle Serotine Leisler's bat	4	Common pipistrelle (1) Serotine (2) Leisler's bat (1)
		24/04/17	20:23	Common pipistrelle recorded 28 minutes after sunset.	Common pipistrelle Serotine Pipistrellus sp. Myotis sp.	6	Common pipistrelle (2) Serotine (2) Pipistrellus sp. (1) Myotis sp. (1)
	May	24/05/17	21:08	Noctule recorded 11 minutes after sunset. Pipistrellus sp. Recorded 30 minutes after sunset. Myotis sp. Recorded 70 minutes after sunset.	Noctule Pipistrellus sp. Serotine/Nyctalus sp. Common pipistrelle Serotine Brown long-eared bat Myotis sp. Leisler's bat Barbastelle	107	Noctule (31) Pipistrellus sp. (7) Serotine/Nyctalus sp. (1) Common pipistrelle (4) Serotine (9) Brown long-eared bat (11) Myotis sp. (7) Leisler's bat (24) Barbastelle (1)
		25/05/17	21:09	Noctule recorded 11 minutes after sunset.	Noctule Soprano pipistrelle Leisler's bat	688	Noctule (9) Soprano pipistrelle (16) Leisler's bat (464)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 54 minutes after sunset. Myotis species recorded 70 minutes after sunset.	Common pipistrelle Myotis sp. Pipistrellus sp. Brown long-eared bat Unknown Serotine/Nyctalus sp. Serotine		Common pipistrelle (15) Myotis sp. (10) Pipistrellus sp. (10) Brown long-eared bat (22) Unknown (5) Serotine/Nyctalus sp. (45) Serotine (91)
		26/05/17	21:10	Pipistrellus sp. Recorded 41 minutes after sunset. Soprano pipistrelle recorded 53 minutes after sunset. Myotis sp. Recorded 79 minutes after sunset.	Pipistrellus sp. Soprano pipistrelle Leisler's bat Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Serotine Brown long-eared bat Barbastelle Unknown	115	Pipistrellus sp. (8) Soprano pipistrelle (3) Leisler's bat (49) Common pipistrelle (11) Myotis sp. (15) Serotine/Nyctalus sp. (7) Serotine (11) Brown long-eared bat (9) Barbastelle (1) Unknown (1)
		27/05/17	21:12	Noctule recorded 22 minutes after sunset. Brown long-eared bat recorded 71 minutes after sunset. Myotis species recorded 85 minutes after sunset.	Noctule Serotine Leisler's bat Brown long-eared bat Myotis sp. Serotine/Nyctalus sp. Pipistrellus sp. Common pipistrelle Soprano pipistrelle	59	Noctule (13) Serotine (4) Leisler's bat (11) Brown long-eared bat (12) Myotis sp. (8) Serotine/Nyctalus sp. (3) Pipistrellus sp. (1) Common pipistrelle (2) Soprano pipistrelle (5)
		28/05/17	21:13	Leisler's bat recorded 26 minutes after sunset. Pipistrellus sp. Recorded 35 minutes after sunset.	Leisler's bat Noctule Pipistrellus sp. Brown long-eared bat Unknown Serotine/Nyctalus sp. Common pipistrelle	34	Leisler's bat (7) Noctule (15) Pipistrellus sp. (1) Brown long-eared bat (3) Unknown (1) Serotine/Nyctalus sp. (6) Common pipistrelle (1)
		29/05/17	21:14	None recorded within limit.	Serotine/Nyctalus sp. Leisler's bat Brown long-eared bat	74	Serotine/Nyctalus sp. (7) Leisler's bat (11) Brown long-eared bat (7)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Pipistrellus sp. Serotine Soprano pipistrelle Myotis sp. Barbastelle Unknown Common pipistrelle		Noctule (8) Pipistrellus sp. (19) Serotine (1) Soprano pipistrelle (1) Myotis sp. (7) Barbastelle (2) Unknown (2) Common pipistrelle (9)
		30/05/17	21:15	Noctule recorded 19 minutes after sunset. Brown long-eared bat recorded 46 minutes after sunset.	Noctule Brown long-eared bat Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle Pipistrellus sp. Myotis sp. Common pipistrelle	51	Noctule (5) Brown long-eared bat (10) Leisler's bat (12) Serotine/Nyctalus sp. (5) Soprano pipistrelle (3) Pipistrellus sp. (9) Myotis sp. (2) Common pipistrelle (5)
	June	21/06/17	21:30	None recorded within limit.	Unknown Leisler's bat Serotine/Nyctalus sp. Noctule	12	Unknown (2) Leisler's bat (8) Serotine/Nyctalus sp. (1) Noctule (1)
		22/06/17	21:30	Noctule recorded 27 minutes after sunset.	Noctule Serotine/Nyctalus sp. Myotis sp. Common pipistrelle Unknown	6	Noctule (2) Serotine/Nyctalus sp. (1) Myotis sp. (1) Common pipistrelle (1) Unknown (1)
		23/06/17	21:30	None recorded within the limit.	Serotine/Nyctalus sp. Leisler's bat Noctule Myotis sp. Common pipistrelle. Unknown	68	Serotine/Nyctalus sp. (4) Leisler's bat (1) Noctule (1) Myotis sp. (10) Common pipistrelle. (28) Unknown (24)
		24/06/17	21:30	Pipistrellus sp. Recorded 35 minutes after sunset.	Pipistrellus sp. Leisler's bat Serotine/Nyctalus sp. Unknown Myotis sp.	6	Pipistrellus sp. (1) Leisler's bat (1) Serotine/Nyctalus sp. (1) Unknown (1) Myotis sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle		Common pipistrelle (1)
		25/06/17	21:31	Myotis sp. Recorded 64 minutes after sunset.	Myotis sp. Serotine/Nyctalus sp. Noctule	5	Myotis sp. (3) Serotine/Nyctalus sp. (1) Noctule (1)
		26/06/17	21:30	Myotis sp. Recorded 59 minutes after sunset.	Myotis sp. Serotine/Nyctalus sp. Leisler's bat Serotine Unknown	32	Myotis sp. (9) Serotine/Nyctalus sp. (15) Leisler's bat (6) Serotine (1) Unknown (1)
		27/06/17	21:30	None recorded within limit.	Leisler's bat	1	Leisler's bat (1)
	July	20/07/17	21:15	Common pipistrelle recorded 40 minutes after sunset. Myotis sp. Recorded 69 minutes after sunset.	Common pipistrelle Myotis sp.	254	Common pipistrelle (10) Myotis sp. (244)
		21/07/17	21:14	Myotis sp. Recorded 52 minutes after sunset.	Myotis sp. Common pipistrelle Unknown	4	Myotis sp. (2) Common pipistrelle (1) Unknown (1)
		22/07/17	21:12	Common pipistrelle recorded 56 minutes after sunset.	Common pipistrelle Pipistrellus sp.	2	Common pipistrelle (1) Pipistrellus sp. (1)
		23/07/17	21:11	None recorded within the limit.	Common pipistrelle Myotis sp. Unknown	34	Common pipistrelle (22) Myotis sp. (3) Unknown (9)
		24/07/17	21:10	None recorded within the limit.	Common pipistrelle Soprano pipistrelle	11	Common pipistrelle (10) Soprano pipistrelle (1)
		25/07/17	21:08	None recorded within the limit.	Unknown Pipistrellus sp. Myotis sp. Common pipistrelle Serotine/Nyctalus sp.	103	Unknown (48) Pipistrellus sp. (2) Myotis sp. (15) Common pipistrelle (37) Serotine/Nyctalus sp. (1)
		26/07/17	21:07	None recorded within the limit.	Common pipistrelle Myotis sp. Unknown	53	Common pipistrelle (41) Myotis sp. (5) Unknown (7)
	September	13/09/17	19:30	Unknown species recorded 24 minutes after sunset.	Unknown Soprano pipistrelle Myotis sp.	19	Unknown (6) Soprano pipistrelle (11) Myotis sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 28 minutes after sunset. Myotis sp. Recorded 65 minutes after sunset.			
		14/09/17	19:28	Unknown species recorded 29 minutes after sunset.	Unknown Serotine Serotine/Nyctalus sp. Leisler's bat Myotis sp. Common pipistrelle Soprano pipistrelle	11	Unknown (1) Serotine (1) Serotine/Nyctalus sp. (2) Leisler's bat (1) Myotis sp. (1) Common pipistrelle (4) Soprano pipistrelle (1)
		15/09/17	19:26	Soprano pipistrelle recorded 23 minutes after sunset.	Soprano pipistrelle Leisler's bat Myotis sp.	6	Soprano pipistrelle (4) Leisler's bat (1) Myotis sp. (1)
		16/09/17	19:24	None recorded within the limit.	Soprano pipistrelle	4	Soprano pipistrelle (4)
		17/09/17	19:21	Soprano pipistrelle recorded 23 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Serotine Myotis sp.	10	Soprano pipistrelle (4) Serotine/Nyctalus sp. (1) Leisler's bat (2) Serotine (1) Myotis sp. (2)
		18/09/17	19:19	Pipistrellus sp. Recorded 28 minutes after sunset.	Pipistrellus sp. Leisler's bat Common pipistrelle Lesser horseshoe bat Myotis sp. Soprano pipistrelle	43	Pipistrellus sp. (1) Leisler's bat (6) Common pipistrelle (19) Lesser horseshoe bat (1) Myotis sp. (10) Soprano pipistrelle (6)
		19/09/17	19:17	Serotine/Nyctalus sp. Recorded 32 minutes after sunset.	Serotine/Nyctalus sp. Serotine Leisler's bat Myotis sp. Common pipistrelle Pipistrellus sp. Soprano pipistrelle Myotis sp. Unknown Noctule	40	Serotine/Nyctalus sp. (12) Serotine (3) Leisler's bat (5) Myotis sp. (9) Common pipistrelle (2) Pipistrellus sp. (1) Soprano pipistrelle (5) Myotis sp. (9) Unknown (2) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	October	12/10/17	18:25	None recorded within the limit	Serotine/Nyctalus sp. Serotine Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	596	Serotine/Nyctalus sp. (8) Serotine (2) Myotis sp. (106) Leisler's bat (6) Common pipistrelle (322) Soprano pipistrelle (32) Pipistrellus sp. (64) Unknown (56)
		13/10/17	18:23	Noctule recorded 15 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Noctule Unknown	274	Myotis sp. (45) Common pipistrelle (215) Soprano pipistrelle (7) Pipistrellus sp. (1) Noctule (1) Unknown (5)
		14/10/17	18:21	None heard within the limit.	Serotine/Nyctalus sp. Unknown Myotis sp. Serotine Leisler's bat Common pipistrelle Soprano pipistrelle	62	Serotine/Nyctalus sp. (4) Unknown (5) Myotis sp. (17) Serotine (2) Leisler's bat (12) Common pipistrelle (1) Soprano pipistrelle (21)
		15/10/17	18:19	None heard within the limit.	Serotine/Nyctalus sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Myotis sp. Unknown Serotine Leisler's bar	55	Serotine/Nyctalus sp. (8) Common pipistrelle (10) Soprano pipistrelle (2) Pipistrellus sp. (10) Myotis sp. (11) Unknown (6) Serotine (1) Leisler's bat (7)
		16/10/17	18:17	None heard within the limit	Soprano pipistrelle Common pipistrelle Myotis sp. Unknown	89	Soprano pipistrelle (27) Common pipistrelle (14) Myotis sp. (33) Unknown (15)
		17/10/17	18:15	None heard within the limit	Noctule Myotis sp. Soprano pipistrelle	4	Noctule (1) Myotis sp. (1) Soprano pipistrelle (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		18/10/17	18:13	Serotine/Nyctalus sp. Recorded 40 minutes after sunset.	Serotine/Nyctalus sp. Myotis sp. Soprano pipistrelle	3	Serotine/Nyctalus sp. (1) Myotis sp. (1) Soprano pipistrelle (1)
Offline 1b	April	19/04/17	20:14	Soprano pipistrelle recorded 36 minutes after sunset. Myotis sp. Recorded 54 minutes after sunset.	Serotine/Nyctalus sp. Serotine Myotis sp. Soprano pipistrelle Unknown Common pipistrelle Lesser horseshoe bat	47	Serotine/Nyctalus sp. (1) Serotine (39) Myotis sp. (2) Soprano pipistrelle (2) Unknown (1) Common pipistrelle (1) Lesser horseshoe bat (1)
		20/04/17	20:16	Noctule recorded 40 minutes after sunset.	Barbastelle Serotine/Nyctalus sp. Serotine Leisler's Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	185	Barbastelle (5) Serotine/Nyctalus sp. (29) Serotine (64) Leisler's (9) Noctule (40) Common pipistrelle (12) Soprano pipistrelle (7) Pipistrellus sp. (5) Unknown (14)
		21/04/17	20:18	Serotine/Nyctalus sp. Recorded 32 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Brown long-eared bat Barbastelle Noctule Leisler's bat Serotine/Nyctalus sp. Serotine Unknown	307	Common pipistrelle (5) Soprano pipistrelle (11) Pipistrellus sp. (2) Brown long-eared bat (1) Barbastelle (3) Noctule (16) Leisler's bat (111) Serotine/Nyctalus sp. (137) Serotine (17) Unknown (5)
		22/04/17	20:19	Unknown species recorded 39 minutes after sunset.	Unknown Common pipistrelle Serotine Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle Noctule	101	Unknown (2) Common pipistrelle (6) Serotine (10) Leisler's bat (18) Serotine/Nyctalus sp. (36) Soprano pipistrelle (8) Noctule (14)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Barbastelle Myotis sp. Pipistrellus sp.		Barbastelle (4) Myotis sp. (2) Pipistrellus sp. (1)
		23/04/17	20:21	Soprano pipistrelle recorded 26 minutes after sunset. Pipistrellus sp. Recorded 41 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Leisler's bat Noctule Unknown Serotine Serotine/Nyctalus sp. Barbastelle Myotis sp. Common pipistrelle Brown long-eared bat Lesser horseshoe bat	77	Soprano pipistrelle (3) Pipistrellus sp. (1) Leisler's bat (36) Noctule (6) Unknown (3) Serotine (12) Serotine/Nyctalus sp. (1) Barbastelle (3) Myotis sp. (2) Common pipistrelle (7) Brown long-eared bat (1) Lesser horseshoe bat (1)
		24/04/17	20:23	Unknown species recorded 16 minutes after sunset. Noctule recorded 30 minutes after sunset.	Unknown Noctule Serotine Leisler's bat Pipistrellus sp. Soprano pipistrelle Common pipistrelle	48	Unknown (6) Noctule (12) Serotine (7) Leisler's bat (13) Pipistrellus sp. (3) Soprano pipistrelle (3) Common pipistrelle (3)
	May	24/05/17	21:08	Brown long-eared bat recorded 57 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown Serotine Brown long-eared bat Serotine/Nyctalus sp. Myotis sp. Leisler's bat Barbastelle Noctule	277	Common pipistrelle (35) Soprano pipistrelle (2) Pipistrellus sp. (21) Unknown (2) Serotine (3) Brown long-eared bat (7) Serotine/Nyctalus sp. (26) Myotis sp. (4) Leisler's bat (162) Barbastelle (5) Noctule (9)
		25/05/17	21:09	Soprano pipistrelle recorded 37 minutes after sunset.	Barbastelle Serotine/Nyctalus sp. Soprano pipistrelle	485	Barbastelle (8) Serotine/Nyctalus sp. (17) Soprano pipistrelle (9)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Barbastelle recorded 57 minutes after sunset.	Leisler's bat Common pipistrelle Pipistrellus sp. Brown long-eared bat Serotine Noctule Unknown		Leisler's bat (112) Common pipistrelle (35) Pipistrellus sp. (256) Brown long-eared bat (12) Serotine (25) Noctule (6) Unknown (3)
		26/05/17	21:10	Soprano pipistrelle recorded 33 minutes after sunset. Pipistrellus sp. Recorded 49 minutes after sunset. Barbastelle recorded 53 minutes after sunset.	Barbastelle Serotine/Nyctalus sp. Soprano pipistrelle Common pipistrelle Leisler's bat Brown long-eared bat Serotine Unknown Pipistrellus sp.	237	Barbastelle (1) Serotine/Nyctalus sp. (10) Soprano pipistrelle (3) Common pipistrelle (33) Leisler's bat (39) Brown long-eared bat (10) Serotine (7) Unknown (7) Pipistrellus sp. (127)
		27/05/17	21:12	Soprano pipistrelle recorded 25 minutes after sunset. Brown long-eared bat recorded 62 minutes after sunset.	Soprano pipistrelle Unknown Leisler's bat Brown long-eared bat Common pipistrelle Serotine/Nyctalus sp. Noctule Myotis sp. Pipistrellus sp. Barbastelle	188	Soprano pipistrelle (62) Unknown (1) Leisler's bat (48) Brown long-eared bat (10) Common pipistrelle (25) Serotine/Nyctalus sp. (8) Noctule (4) Myotis sp. (3) Pipistrellus sp. (17) Barbastelle (8)
		28/05/17	21:13	Soprano pipistrelle recorded 24 minutes after sunset.	Soprano pipistrelle Leisler's bat Serotine Common pipistrelle Myotis sp. Pipistrellus sp.	77	Soprano pipistrelle (50) Leisler's bat (22) Serotine (1) Common pipistrelle (2) Myotis sp. (1) Pipistrellus sp. (1)
		29/05/17	21:14	Soprano pipistrelle recorded 10 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Serotine	221	Soprano pipistrelle (32) Serotine/Nyctalus sp. (16) Leisler's bat (37) Serotine (82)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Brown long-eared bat Myotis sp. Pipistrellus sp. Barbastelle Common pipistrelle		Noctule (11) Brown long-eared bat (1) Myotis sp. (2) Pipistrellus sp. (19) Barbastelle (1) Common pipistrelle (20)
		30/05/17	21:15	Soprano pipistrelle recorded 8 minutes after sunset. Serotine recorded 20 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Brown long-eared bat Leisler's bat Unknown Noctule Serotine Myotis sp.	272	Common pipistrelle (20) Soprano pipistrelle (20) Pipistrellus sp. (12) Serotine/Nyctalus sp. (15) Brown long-eared bat (2) Leisler's bat (32) Unknown (1) Noctule (3) Serotine (165) Myotis sp. (2)
	June	21/06/17	21:30	Common pipistrelle recorded 35 minutes after sunset. Pipistrellus sp. Recorded 66 minutes after sunset.	Common pipistrelle Pipistrellus sp. Leisler's bat Serotine Serotine/Nyctalus sp. Natterer's pipistrelle Noctule Unknown Soprano pipistrelle	90	Common pipistrelle (13) Pipistrellus sp. (19) Leisler's bat (9) Serotine (6) Serotine/Nyctalus sp. (7) Natterer's pipistrelle (2) Noctule (1) Unknown (9) Soprano pipistrelle (12)
		22/06/17	21:30	Leisler's bat recorded 27 minutes after sunset. Pipistrellus sp. Recorded 31 minutes after sunset. Soprano pipistrelle recorded 49 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Leisler's bat Unknown Serotine Serotine/Nyctalus sp. Noctule	105	Common pipistrelle (43) Soprano pipistrelle (3) Pipistrellus sp. (32) Leisler's bat (4) Unknown (4) Serotine (10) Serotine/Nyctalus sp. (6) Noctule (1)
		23/06/17	21:30	Soprano pipistrelle recorded 23 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle	101	Soprano pipistrelle (13) Pipistrellus sp. (20) Common pipistrelle (27)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Pipistrellus sp. Recorded 25 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Noctule recorded 31 minutes after sunset.	Noctule Serotine Serotine/Nyctalus sp. Unknown		Noctule (1) Serotine (23) Serotine/Nyctalus sp. (6) Unknown (6)
		24/06/17	21:30	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 20 minutes after sunset. Serotine/Nyctalus sp. Recorded 26 minutes after sunset. Pipistrellus sp. Recorded 26 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Unknown Serotine Noctule Pipistrellus sp. Myotis sp.	77	Soprano pipistrelle (5) Common pipistrelle (45) Serotine/Nyctalus sp. (3) Unknown (3) Serotine (6) Noctule (2) Pipistrellus sp. (12) Myotis sp. (1)
		25/06/17	21:31	Soprano pipistrelle recorded 26 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Pipistrellus sp. Recorded 34 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Unknown Noctule Serotine Serotine/Nyctalus sp. Myotis sp.	84	Soprano pipistrelle (12) Common pipistrelle (34) Pipistrellus sp. (12) Unknown (10) Noctule (1) Serotine (3) Serotine/Nyctalus sp. (3) Myotis sp. (4)
		26/06/17	21:30	Common pipistrelle recorded 27 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset. Pipistrellus sp. Recorded 27 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown Serotine Noctule Leisler's bat Serotine/Nyctalus sp.	250	Common pipistrelle (50) Soprano pipistrelle (18) Pipistrellus sp. (41) Unknown (16) Serotine (60) Noctule (3) Leisler's bat (5) Serotine/Nyctalus sp. (57)
		27/06/17	21:30	Soprano pipistrelle recorded 27 minutes after sunset.	Soprano pipistrelle Serotine Noctule	14	Soprano pipistrelle (5) Serotine (1) Noctule (1)
	July	20/07/17	21:15	Soprano pipistrelle recorded 34 minutes after sunset.	Soprano pipistrelle Pipistrellus sp.	278	Soprano pipistrelle (4) Pipistrellus sp. (181)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Pipistrellus sp. Recorded 34 minutes after sunset. Common pipistrelle recorded 61 minutes after sunset.	Common pipistrelle Unknown Serotine/Nyctalus sp.		Common pipistrelle (61) Unknown (31) Serotine/Nyctalus sp. (1)
		21/07/17	21:14	None recorded within the limit.	Common pipistrelle Pipistrellus sp.	3	Common pipistrelle (2) Pipistrellus sp. (1)
		22/07/17	21:12	Common pipistrelle recorded 29 minutes after sunset.	Common pipistrelle Unknown Serotine	3	Common pipistrelle (1) Unknown (1) Serotine (1)
		23/07/17	21:11	Common pipistrelle recorded 25 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Leisler's bat Soprano pipistrelle Pipistrellus sp. Unknown Noctule	22	Common pipistrelle (8) Serotine/Nyctalus sp. (7) Leisler's bat (1) Soprano pipistrelle (4) Pipistrellus sp. (1) Unknown (1) Noctule (1)
		24/07/17	21:10	None recorded within the limit.	Unknown Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Leisler's bat	27	Unknown (4) Common pipistrelle (6) Pipistrellus sp. (2) Serotine/Nyctalus sp. (13) Leisler's bat (2)
		25/07/17	21:08	Unknown species recorded 35 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset.	Unknown Common pipistrelle Serotine/Nyctalus sp. Leisler's bat Myotis sp. Pipistrellus sp. Soprano pipistrelle Serotine	149	Unknown (16) Common pipistrelle (71) Serotine/Nyctalus sp. (15) Leisler's bat (1) Myotis sp. (1) Pipistrellus sp. (38) Soprano pipistrelle (6) Serotine (1)
		26/07/17	21:07	Soprano pipistrelle recorded 30 minutes after sunset. Pipistrellus sp. Recorded 53 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Unknown Leisler's bat	18	Soprano pipistrelle (3) Pipistrellus sp. (1) Common pipistrelle (11) Unknown (2) Leisler's bat (1)
	August	16/08/17	20:31	Soprano pipistrelle recorded 16 minutes after sunset.	Soprano pipistrelle Leisler's bat	32	Soprano pipistrelle (6) Leisler's bat (11)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp. Common pipistrelle Myotis sp. Unknown		Serotine/Nyctalus sp. (6) Common pipistrelle (6) Myotis sp. (1) Unknown (2)
		17/08/17	20:29	Common pipistrelle recorded 48 minutes after sunset.	Common pipistrelle Unknown Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle	30	Common pipistrelle (7) Unknown (5) Leisler's bat (4) Serotine/Nyctalus sp. (10) Soprano pipistrelle (4)
		18/08/17	20:27	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 60 minutes after sunset.	Soprano pipistrelle Unknown Common pipistrelle Leisler's bat Noctule Serotine/Nyctalus sp. Myotis sp. Pipistrellus sp.	62	Soprano pipistrelle (20) Unknown (5) Common pipistrelle (18) Leisler's bat (6) Noctule (1) Serotine/Nyctalus sp. (10) Myotis sp. (1) Pipistrellus sp. (1)
		20/08/17	20:23	None recorded within the limit	Noctule Serotine/Nyctalus sp. Leisler's bat Soprano pipistrelle	18	Noctule (8) Serotine/Nyctalus sp. (4) Leisler's bat (5) Soprano pipistrelle (1)
		21/08/17	20:21	Leisler's bat recorded 35 minutes after sunset Common pipistrelle recorded 36 minutes after sunset	Leisler's bat Common pipistrelle Serotine/Nyctalus sp. Unknown Myotis sp. Noctule Soprano pipistrelle	66	Leisler's bat (47) Common pipistrelle (2) Serotine/Nyctalus sp. (11) Unknown (1) Myotis sp. (1) Noctule (3) Soprano pipistrelle
		22/08/17	20:19	Soprano pipistrelle recorded 28 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Unknown Leisler's bat Serotine/Nyctalus sp. Myotis sp.	55	Soprano pipistrelle (21) Common pipistrelle (4) Pipistrellus sp. (1) Unknown (2) Leisler's bat (16) Serotine/Nyctalus sp. (10) Myotis sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	September	13/09/17	19:30	Common pipistrelle recorded 21 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 55 minutes after sunset.	Common pipistrelle Soprano pipistrelle Unknown Myotis sp. Pipistrellus sp. Serotine/Nyctalus sp.	13	Common pipistrelle (2) Soprano pipistrelle (2) Unknown (4) Myotis sp. (2) Pipistrellus sp. (2) Serotine/Nyctalus sp. (1)
		14/09/17	19:28	Pipistrellus sp. Recorded 36 minutes after sunset.	Pipistrellus sp. Unknown	3	Pipistrellus sp. (2) Unknown (1)
		15/09/17	19:26	Myotis sp. Recorded 51 minutes after sunset.	Myotis sp. Common pipistrelle Leisler's bat Unknown Soprano pipistrelle	7	Myotis sp. (1) Common pipistrelle (1) Leisler's bat (2) Unknown (2) Soprano pipistrelle (1)
		16/09/17	19:24	Soprano pipistrelle recorded 9 minutes after sunset.	Soprano pipistrelle	2	Soprano pipistrelle (2)
		17/09/17	19:21	None recorded within limit.	Serotine/Nyctalus sp. Leisler's bat Pipistrellus sp. Unknown	12	Serotine/Nyctalus sp. (5) Leisler's bat (5) Pipistrellus sp. (1) Unknown (1)
		18/09/17	19:19	None recorded within the limit.	Serotine/Nyctalus sp. Unknown Myotis sp.	7	Serotine/Nyctalus sp. (3) Unknown (2) Myotis sp. (2)
		19/09/17	19:17	Soprano pipistrelle recorded 11 minutes after sunset.	Soprano pipistrelle Leisler's bat Serotine/Nyctalus sp. Serotine Common pipistrelle Myotis sp.	79	Soprano pipistrelle (2) Leisler's bat (64) Serotine/Nyctalus sp. (7) Serotine (2) Common pipistrelle (3) Myotis sp. (1)
	October	12/10/17	18:25	Serotine/Nyctalus sp. Recorded 29 minutes after sunset. Pipistrellus sp. Recorded 33 minutes after sunset. Soprano pipistrelle recorded 48 minutes after sunset.	Serotine/Nyctalus sp. Serotine Leisler's bat Pipistrellus sp. Soprano pipistrelle Common pipistrelle Unknown	296	Serotine/Nyctalus sp. (39) Serotine (18) Leisler's bat (39) Pipistrellus sp. (23) Soprano pipistrelle (5) Common pipistrelle (17) Unknown (147)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 49 minutes after sunset.	Myotis sp. Barbastelle		Myotis sp. (2) Barbastelle (6)
		13/10/17	18:23	Pipistrellus sp. Recorded 26 minutes after sunset. Soprano pipistrelle recorded 28 minutes after sunset. Barbastelle recorded 57 minutes after sunset.	Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp. Serotine Barbastelle Leisler's bat Unknown Brown long-eared bat Common pipistrelle Myotis sp.	217	Pipistrellus sp. (10) Soprano pipistrelle (15) Serotine/Nyctalus sp. (65) Serotine (21) Barbastelle (14) Leisler's bat (31) Unknown (56) Brown long-eared bat (1) Common pipistrelle (3) Myotis sp. (1)
		14/10/17	18:21	Noctule recorded 20 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Barbastelle recorded 59 minutes after sunset.	Noctule Serotine/Nyctalus so. Soprano pipistrelle Unknown Serotine Leisler's bat Barbastelle Myotis sp. Common pipistrelle Pipistrellus sp.	252	Noctule (1) Serotine/Nyctalus sp. (42) Soprano pipistrelle (4) Unknown (49) Serotine (6) Leisler's bat (133) Barbastelle (7) Myotis sp. (1) Common pipistrelle (4) Pipistrellus sp. (5)
		15/10/17	18:19	Serotine/Nyctalus sp. Recorded 34 minutes after sunset. Barbastelle recorded 43 minutes after sunset.	Serotine/Nyctalus sp. Barbastelle Leisler's bat Pipistrellus sp. Serotine Unknown Common pipistrelle Myotis sp. Soprano pipistrelle	270	Serotine/Nyctalus sp. (52) Barbastelle (8) Leisler's bat (105) Pipistrellus sp. (5) Serotine (62) Unknown (26) Common pipistrelle (5) Myotis sp. (1) Soprano pipistrelle (6)
		16/10/17	18:17	Soprano pipistrelle recorded 35 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Barbastelle Serotine Leisler's bat	114	Soprano pipistrelle (7) Serotine/Nyctalus sp. (68) Barbastelle (6) Serotine (13) Leisler's bat (12)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Unknown Pipistrellus sp. Common pipistrelle Myotis sp.		Unknown (2) Pipistrellus sp. (1) Common pipistrelle (1) Myotis sp. (4)
		17/10/17	18:15	Serotine/Nyctalus sp. Recorded 28 minutes after sunset. Pipistrellus sp. Recorded 48 minutes after sunset. Barbastelle recorded 54 minutes after sunset.	Serotine/Nyctalus sp. Pipistrellus sp. Barbastelle Unknown Myotis sp. Soprano pipistrelle	23	Serotine/Nyctalus sp. (12) Pipistrellus sp. (3) Barbastelle (3) Unknown (3) Myotis sp. (1) Soprano pipistrelle (1)
		18/10/17	18:13	None recorded within limit.	Leisler's bat Serotine Serotine/Nyctalus sp. Lesser horseshoe bat Unknown Barbastelle Myotis sp. Common pipistrelle	42	Leisler's bat (8) Serotine (2) Serotine/Nyctalus sp. (20) Lesser horseshoe bat (1) Unknown (3) Barbastelle (6) Myotis sp. (1) Common pipistrelle (1)
Offline 1c	April	19/04/17	20:14	Noctule recorded 20 minutes after sunset. Pipistrellus sp. Recorded 33 minutes after sunset. Common pipistrelle recorded 42 minutes after sunset.	Noctule Pipistrellus sp. Leisler's bat Serotine Unknown Serotine/Nyctalus sp. Common pipistrelle Brown long-eared bat	24	Noctule (3) Pipistrellus sp. (1) Leisler's bat (3) Serotine (8) Unknown (1) Serotine/Nyctalus sp. (4) Common pipistrelle (3) Brown long-eared bat (1)
		20/04/17	20:16	Noctule recorded 7 minutes after sunset. Pipistrellus sp. Recorded 28 minutes after sunset. Brown long-eared bat recorded 74 minutes after sunset.	Noctule Pipistrellus sp. Unknown Serotine Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle	100	Noctule (10) Pipistrellus sp. (13) Unknown (21) Serotine (9) Leisler's bat (10) Serotine/Nyctalus sp. (11) Brown long-eared bat (3) Common pipistrelle (22) Soprano pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		21/04/17	20:18	Noctule recorded 16 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset. Brown long-eared bat recorded 32 minutes after sunset. Pipistrellus sp. Recorded 38 minutes after sunset.	Noctule Common pipistrelle Brown long-eared bat Serotine Pipistrellus sp. Unknown Leisler's bat Serotine/Nyctalus sp. Myotis sp. Soprano pipistrelle	128	Noctule (6) Common pipistrelle (18) Brown long-eared bat (1) Serotine (22) Pipistrellus sp. (17) Unknown (7) Leisler's bat (24) Serotine/Nyctalus sp. (31) Myotis sp. (1) Soprano pipistrelle (1)
		22/04/17	20:19	Pipistrellus sp. Recorded 31 minutes after sunset.	Pipistrellus sp. Noctule Serotine Unknown Leisler's bat Common pipistrelle Serotine/Nyctalus sp.	57	Pipistrellus sp. (6) Noctule (1) Serotine (17) Unknown 5) Leisler's bat (10) Common pipistrelle (3) Serotine/Nyctalus sp. (15)
		23/04/17	20:21	Noctule recorded 9 minutes after sunset. Pipistrellus sp. Recorded 47 minutes after sunset.	Noctule Leisler's bat Serotine Pipistrellus sp. Serotine/Nyctalus sp. Common pipistrelle	57	Noctule (7) Leisler's bat (9) Serotine (20) Pipistrellus sp. (3) Serotine/Nyctalus sp. (14) Common pipistrelle (3)
		24/04/17	20:23	Pipistrellus sp. Recorded 39 minutes after sunset. Common pipistrelle recorded 43 minutes after sunset. Lesser horseshoe bat recorded 55 minutes after sunset.	Pipistrellus sp. Common pipistrelle Lesser horseshoe bat Serotine Leisler's bat Serotine/Nyctalus sp. Noctule Myotis sp.	23	Pipistrellus sp. (15) Common pipistrelle (1) Lesser horseshoe bat (2) Serotine (1) Leisler's bat (1) Serotine/Nyctalus sp. (1) Noctule (1) Myotis sp. (1)
	May	24/05/17	21:08	Noctule recorded 18 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset.	Noctule Common pipistrelle Unknown Soprano pipistrelle Pipistrellus sp.	222	Noctule (8) Common pipistrelle (34) Unknown (6) Soprano pipistrelle (4) Pipistrellus sp. (33)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 51 minutes after sunset. Myotis sp. Recorded 61 minutes after sunset.	Serotine/Nyctalus sp. Serotine Myotis sp. Leisler's bat		Serotine/Nyctalus sp. (23) Serotine (87) Myotis sp. (5) Leisler's bat (22)
		25/05/17	21:09	Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 42 minutes after sunset. Myotis sp. Recorded 65 minutes after sunset.	Common pipistrelle Soprano pipistrelle Unknown Pipistrellus sp. Myotis sp. Serotine/Nyctalus sp. Noctule Serotine Brown long-eared bat Leisler's bat	252	Common pipistrelle (17) Soprano pipistrelle (15) Unknown (10) Pipistrellus sp. (31) Myotis sp. (2) Serotine/Nyctalus sp. (16) Noctule (4) Serotine (134) Brown long-eared bat (5) Leisler's bat (18)
		26/05/17	21:10	Barbastelle recorded 75 minutes after sunset.	Unknown Serotine Pipistrellus sp. Barbastelle Noctule Serotine/Nyctalus sp. Leisler's bat Common pipistrelle	83	Unknown (5) Serotine (8) Pipistrellus sp. (2) Barbastelle (1) Noctule (3) Serotine/Nyctalus sp. (54) Leisler's bat (8) Common pipistrelle (2)
		27/05/17	21:12	Noctule recorded 19 minutes after sunset.	Noctule Unknown Serotine/Nyctalus sp. Pipistrellus sp. Serotine Common pipistrelle Leisler's bat Lesser horseshoe bat Soprano pipistrelle	87	Noctule (6) Unknown (15) Serotine/Nyctalus sp. (27) Pipistrellus sp. (23) Serotine (2) Common pipistrelle (16) Leisler's bat (4) Lesser horseshoe bat (3) Soprano pipistrelle (3)
		28/05/17	21:13	Serotine/Nyctalus sp. Recorded 19 minutes after sunset. Common pipistrelle recorded 43 minutes after sunset.	Serotine/Nyctalus sp. Unknown Common pipistrelle Soprano pipistrelle Pipistrellus sp.	118	Serotine/Nyctalus sp. (36) Unknown (12) Common pipistrelle (20) Soprano pipistrelle (8) Pipistrellus sp. (28)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 46 minutes after sunset.	Serotine Noctule Leisler's bat		Serotine (4) Noctule (9) Leisler's bat (3)
		29/05/17	21:14	Common pipistrelle recorded 29 minutes after sunset. Pipistrellus sp. Recorded 35 minutes after sunset.	Unknown Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Serotine Leisler's bat Noctule Soprano pipistrelle	131	Unknown (18) Common pipistrelle (18) Pipistrellus sp. (43) Serotine/Nyctalus sp. (31) Serotine (5) Leisler's bat (3) Noctule (8) Soprano pipistrelle (3)
		30/05/17	21:15	None recorded within the limit.	Unknown Serotine/Nyctalus sp. Pipistrellus sp. Common pipistrelle Noctule	41	Unknown (9) Serotine/Nyctalus sp. (4) Pipistrellus sp. (17) Common pipistrelle (10) Noctule (1)
	June	21/06/17	21:30	Pipistrellus sp. Recorded 23 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Serotine/Nyctalus sp. Serotine Unknown Noctule	105	Pipistrellus sp. (43) Common pipistrelle (7) Soprano pipistrelle (7) Serotine/Nyctalus sp. (32) Serotine (10) Unknown (3) Noctule (3)
		22/06/17	21:30	Common pipistrelle recorded 21 minutes after sunset. Pipistrellus sp. Recorded 48 minutes after sunset. Soprano pipistrelle recorded 50 minutes after sunset.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Serotine Noctule Serotine/Nyctalus sp. Unknown	43	Common pipistrelle (8) Pipistrellus sp. (22) Soprano pipistrelle (1) Serotine (2) Noctule (1) Serotine/Nyctalus sp. (5) Unknown (4)
		23/06/17	21:30	Pipistrellus sp. Recorded 33 minutes after sunset.	Pipistrellus sp. Unknown Soprano pipistrelle Noctule Common pipistrelle Serotine	17	Pipistrellus sp. (6) Unknown (3) Soprano pipistrelle (3) Noctule (1) Common pipistrelle (1) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp.		Serotine/Nyctalus sp. (2)
		24/06/17	21:30	Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 36 minutes after sunset.	Unknown Common pipistrelle Soprano pipistrelle Pipistrellus sp. Serotine Noctule Serotine/Nyctalus sp.	23	Unknown (3) Common pipistrelle (7) Soprano pipistrelle (3) Pipistrellus sp. (2) Serotine (1) Noctule (4) Serotine/Nyctalus sp. (4)
		25/06/17	21:31	None recorded within limit.	Unknown Noctule Common pipistrelle Serotine/Nyctalus sp. Pipistrellus sp. Serotine Soprano pipistrelle	33	Unknown (2) Noctule (6) Common pipistrelle (16) Serotine/Nyctalus sp. (2) Pipistrellus sp. (4) Serotine (1) Soprano pipistrelle (2)
		26/06/17	21:30	Common pipistrelle recorded 21 minutes after sunset. Pipistrellus sp. Recorded 22 minutes after sunset. Soprano pipistrelle recorded 41 minutes after sunset.	Common pipistrelle Pipistrellus sp. Noctule Soprano pipistrelle Unknown Serotine/Nyctalus sp. Serotine Leisler's bat	76	Common pipistrelle (12) Pipistrellus sp. (20) Noctule (2) Soprano pipistrelle (14) Unknown (4) Serotine/Nyctalus sp. (10) Serotine (9) Leisler's bat (5)
		27/06/17	21:30	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 50 minutes after sunset.	Common pipistrelle Soprano pipistrelle Myotis sp. Noctule	9	Common pipistrelle (1) Soprano pipistrelle (6) Myotis sp. (1) Noctule (1)
	July	20/07/17	21:15	Common pipistrelle recorded 16 minutes after sunset. Pipistrellus sp. Recorded 46 minutes after sunset.	Common pipistrelle Pipistrellus sp. Unknown Noctule	27	Common pipistrelle (18) Pipistrellus sp. (4) Unknown (4) Noctule (1)
		21/07/17	21:14	None recorded within limit.	Unknown Common pipistrelle Noctule	4	Unknown (1) Common pipistrelle (2) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		22/07/17	21:12	Pipistrellus sp. Recorded 38 minutes after sunset. Lesser horseshoe bat recorded 50 minutes after sunset.	Pipistrellus sp. Lesser horseshoe bat Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Noctule	28	Pipistrellus sp. (2) Lesser horseshoe bat (1) Soprano pipistrelle (2) Common pipistrelle (21) Serotine/Nyctalus sp. (1) Noctule (1)
		23/07/17	21:11	Noctule recorded 15 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset. Pipistrellus sp. Recorded 27 minutes after sunset.	Noctule Common pipistrelle Pipistrellus sp. Unknown Soprano pipistrelle Serotine Brown long-eared bat Serotine/Nyctalus sp. Myotis sp. Leisler's bat Lesser horseshoe bat	78	Noctule (12) Common pipistrelle (34) Pipistrellus sp. (13) Unknown (3) Soprano pipistrelle (3) Serotine (1) Brown long-eared bat (1) Serotine/Nyctalus sp. (6) Myotis sp. (1) Leisler's bat (1) Lesser horseshoe bat (3)
		24/07/17	21:10	Noctule recorded 26 minutes after sunset. Common pipistrelle recorded 46 minutes after sunset. Lesser horseshoe bat recorded 56 minutes after sunset.	Noctule Unknown Common pipistrelle Lesser horseshoe bat Pipistrellus sp. Leisler's bat Serotine/Nyctalus sp.	166	Noctule (5) Unknown (11) Common pipistrelle (119) Lesser horseshoe bat (2) Pipistrellus sp. (27) Leisler's bat (1) Serotine/Nyctalus sp. (1)
		25/07/17	21:08	Common pipistrelle recorded 25 minutes after sunset. Pipistrellus sp. Recorded 28 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset.	Common pipistrelle Unknown Pipistrellus sp. Noctule Leisler's bat Serotine/Nyctalus sp. Serotine Myotis sp. Soprano pipistrelle	128	Common pipistrelle (69) Unknown (7) Pipistrellus sp. (27) Noctule (13) Leisler's bat (2) Serotine/Nyctalus sp. (6) Serotine (2) Myotis sp. (1) Soprano pipistrelle (1)
		26/07/17	21:07	Common pipistrelle recorded 21 minutes after sunset.	Common pipistrelle Unknown Serotine/Nyctalus sp.	108	Common pipistrelle (89) Unknown (3) Serotine/Nyctalus sp. (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle Leisler's bat Pipistrellus sp.		Soprano pipistrelle (3) Leisler's bat (2) Pipistrellus sp. (8)
	August	16/08/17	20:31	Pipistrellus sp. Recorded 17 minutes after sunset. Noctule recorded 19 minutes after sunset. Soprano pipistrelle recorded 26 minutes after sunset.	Pipistrellus sp. Noctule Soprano pipistrelle Serotine/Nyctalus sp. Common pipistrelle Leisler's bat Unknown	116	Pipistrellus sp. (24) Noctule (10) Soprano pipistrelle (6) Serotine/Nyctalus sp. (26) Common pipistrelle (38) Leisler's bat (6) Unknown (6)
		17/08/17	20:29	Common pipistrelle recorded 28 minutes after sunset.	Common pipistrelle Unknown Pipistrellus sp. Leisler's bat Barbastelle Brown long-eared bat Soprano pipistrelle Serotine/Nyctalus sp. Serotine Lesser horseshoe bat Noctule	184	Common pipistrelle (90) Unknown (10) Pipistrellus sp. (20) Leisler's bat (12) Barbastelle (4) Brown long-eared bat (2) Soprano pipistrelle (6) Serotine/Nyctalus sp. (28) Serotine (2) Lesser horseshoe bat (2) Noctule (6)
		18/08/17	20:27	Soprano pipistrelle recorded 23 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset. Myotis sp. Recorded 82 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Serotine/Nyctalus sp. Myotis sp. Pipistrellus sp.	44	Soprano pipistrelle (2) Common pipistrelle (12) Unknown (2) Serotine/Nyctalus sp. (24) Myotis sp. (2) Pipistrellus sp. (2)
		19/08/17	20:25	Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Myotis sp. Recorded 60 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Myotis sp. Serotine/Nyctalus sp. Leisler's bat Barbastelle Lesser horseshoe bat Brown long-eared bat	178	Soprano pipistrelle (6) Common pipistrelle (42) Unknown (8) Myotis sp. (2) Serotine/Nyctalus sp. (90) Leisler's bat (12) Barbastelle (8) Lesser horseshoe bat (2) Brown long-eared bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		20/08/17	20:23	Common pipistrelle recorded 21 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Pipistrellus sp. Soprano pipistrelle Leisler's bat Serotine Lesser horseshoe bat Barbastelle Unknown	170	Common pipistrelle (124) Serotine/Nyctalus sp. (14) Pipistrellus sp. (4) Soprano pipistrelle (10) Leisler's bat (10) Serotine (2) Lesser horseshoe bat (2) Barbastelle (2) Unknown (2)
		21/08/17	20:21	Soprano pipistrelle recorded 25 minutes after sunset. Pipistrellus sp. Recorded 26 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Unknown Noctule Common pipistrelle Leisler's bat Serotine Brown long-eared bat Barbastelle Myotis sp. Serotine/Nyctalus sp.	452	Soprano pipistrelle (26) Pipistrellus sp. (30) Unknown (22) Noctule (18) Common pipistrelle (222) Leisler's bat (72) Serotine (2) Brown long-eared bat (6) Barbastelle (2) Myotis sp. (12) Serotine/Nyctalus sp. (40)
		22/08/17	20:19	Pipistrellus sp. Recorded 23 minutes after sunset. Common pipistrelle recorded 25 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Unknown Leisler's bat Serotine/Nyctalus sp. Myotis sp.	202	Pipistrellus sp. (14) Common pipistrelle (104) Soprano pipistrelle (26) Unknown (20) Leisler's bat (20) Serotine/Nyctalus sp. (16) Myotis sp. (2)
	September	13/09/17	19:30	Soprano pipistrelle recorded 23 minutes after sunset.	Soprano pipistrelle Leisler's bat Common pipistrelle Pipistrellus sp. Barbastelle Serotine/Nyctalus sp. Unknown Myotis sp.	13	Soprano pipistrelle (4) Leisler's bat (1) Common pipistrelle (2) Pipistrellus sp. (1) Barbastelle (1) Serotine/Nyctalus sp. (1) Unknown (2) Myotis sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		14/09/17	19:28	Soprano pipistrelle recorded 26 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Lesser horseshoe bat recorded 69 minutes after sunset.	Soprano pipistrelle Common pipistrelle Lesser horseshoe bat Barbastelle Noctule Myotis sp.	13	Soprano pipistrelle (4) Common pipistrelle (3) Lesser horseshoe bat (2) Barbastelle (2) Noctule (1) Myotis sp. (1)
		15/09/17	19:26	Soprano pipistrelle recorded 22 minutes after sunset.	Soprano pipistrelle Common pipistrelle Leisler's bat Noctule Myotis sp. Serotine/Nyctalus sp.	13	Soprano pipistrelle (6) Common pipistrelle (1) Leisler's bat (2) Noctule (1) Myotis sp. (2) Serotine/Nyctalus sp. (1)
		16/09/17	19:24	Noctule recorded 8 minutes after sunset. Soprano pipistrelle recorded 22 minutes after sunset.	Noctule Soprano pipistrelle Serotine/Nyctalus sp. Unknown	5	Noctule (1) Soprano pipistrelle (2) Serotine/Nyctalus sp. (1) Unknown (1)
		17/09/17	19:21	Soprano pipistrelle recorded 28 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Barbastelle recorded 47 minutes after sunset. Brown long-eared bat recorded 69 minutes after sunset.	Soprano pipistrelle Common pipistrelle Leisler's bat Barbastelle Serotine/Nyctalus sp. Brown long-eared bat	28	Soprano pipistrelle (5) Common pipistrelle (5) Leisler's bat (9) Barbastelle (2) Serotine/Nyctalus sp. (5) Brown long-eared bat (2)
		18/09/17	19:19	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset.	Unknown Soprano pipistrelle Common pipistrelle Leisler's bat Barbastelle Lesser horseshoe bat Brown long-eared bat Serotine/Nyctalus sp. Pipistrellus sp.	34	Unknown (2) Soprano pipistrelle (14) Common pipistrelle (6) Leisler's bat (2) Barbastelle (3) Lesser horseshoe bat (1) Brown long-eared bat (1) Serotine/Nyctalus sp. (3) Pipistrellus sp. (2)
		19/09/17	19:17	Soprano pipistrelle recorded 14 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat	73	Soprano pipistrelle (10) Serotine/Nyctalus sp. (7) Leisler's bat (16)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Unknown Myotis sp. Noctule Pipistrellus sp.		Common pipistrelle (24) Unknown (5) Myotis sp. (1) Noctule (2) Pipistrellus sp. (8)
	October	11/10/17	18:28	None recorded within the limit.	Serotine Unknown Barbastelle	3	Serotine (1) Unknown (1) Barbastelle (1)
		12/10/17	18:25	Pipistrelle species recorded 39 minutes after sunset.	Pipistrellus sp. Serotine/Nyctalus sp. Leisler's bat Serotine Common pipistrelle Unknown Soprano pipistrelle	15	Pipistrellus sp. (3) Serotine/Nyctalus sp. (3) Leisler's bat (1) Serotine (3) Common pipistrelle (2) Unknown (2) Soprano pipistrelle (1)
		13/10/17	18:23	None recorded within the limit.	Leisler's bat Pipistrellus sp. Soprano pipistrelle Serotine Serotine/Nyctalus sp.	13	Leisler's bat (2) Pipistrellus sp. (1) Soprano pipistrelle (4) Serotine (1) Serotine/Nyctalus sp. (5)
		14/10/17	18:21	None recorded within the limit.	Serotine/Nyctalus sp. Serotine Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Unknown	29	Serotine/Nyctalus sp. (8) Serotine (2) Pipistrellus sp. (10) Common pipistrelle (3) Soprano pipistrelle (2) Myotis sp. (3) Unknown (1)
		15/10/17	18:19	None recorded within limit.	Serotine Pipistrellus sp. Leisler's bat Common pipistrelle Serotine/Nyctalus sp. Brown long-eared bat Unknown	17	Serotine (3) Pipistrellus sp. (3) Leisler's bat (3) Common pipistrelle (1) Serotine/Nyctalus sp. (3) Brown long-eared bat (1) Unknown (3)
		16/10/17	18:17	None recorded within limit.	Myotis sp. Serotine/Nyctalus sp.	3	Myotis sp. (1) Serotine/Nyctalus sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		17/10/17	18:15	Soprano pipistrelle recorded 26 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Barbastelle Myotis sp. Unknown	23	Soprano pipistrelle (9) Serotine/Nyctalus sp. (10) Barbastelle (2) Myotis sp. (1) Unknown (1)
		18/10/17	18:13	Soprano pipistrelle recorded 21 minutes after sunset.	Soprano pipistrelle Serotine Noctule Serotine/Nyctalus sp. Barbastelle	12	Soprano pipistrelle (2) Serotine (1) Noctule (2) Serotine/Nyctalus sp. (5) Barbastelle (2)
Offline 4a	April	19/04/17	20:14	Common pipistrelle recorded 27 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Common pipistrelle Soprano pipistrelle Leisler's bat Serotine Serotine/Nyctalus sp. Pipistrellus sp. Lesser horseshoe bat	53	Common pipistrelle (14) Soprano pipistrelle (2) Leisler's bat (28) Serotine (6) Serotine/Nyctalus sp. (1) Pipistrellus sp. (1) Lesser horseshoe bat (1)
		20/04/17	20:16	Common pipistrelle recorded 22 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Leisler's bat Brown long-eared bat Myotis sp. Unknown	72	Common pipistrelle (24) Soprano pipistrelle (1) Pipistrellus sp. (1) Serotine/Nyctalus sp. (1) Leisler's bat (38) Brown long-eared bat (2) Myotis sp. (3) Unknown (2)
		21/04/17	20:18	Common pipistrelle recorded 25 minutes after sunset. Pipistrellus sp. Recorded 31 minutes after sunset. Brown long-eared bat recorded 41 minutes after sunset.	Common pipistrelle Pipistrellus sp. Unknown Serotine/Nyctalus sp. Leisler's bat Brown long-eared bat Serotine Myotis sp. Noctule Soprano pipistrelle	136	Common pipistrelle (34) Pipistrellus sp. (3) Unknown (4) Serotine/Nyctalus sp. (17) Leisler's bat (48) Brown long-eared bat (10) Serotine (13) Myotis sp. (1) Noctule (4) Soprano pipistrelle (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		22/04/17	20:19	Brown long-eared bat recorded 36 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset. Myotis sp. Recorded 58 minutes after sunset.	Brown long-eared bat Common pipistrelle Unknown Soprano pipistrelle Noctule Serotine Leisler's bat Pipistrellus sp. Myotis sp. Serotine/Nyctalus sp.	176	Brown long-eared bat (4) Common pipistrelle (70) Unknown (10) Soprano pipistrelle (4) Noctule (4) Serotine (7) Leisler's bat (30) Pipistrellus sp. (41) Myotis sp. (2) Serotine/Nyctalus sp. (4)
		23/04/17	20:21	Common pipistrelle recorded 22 minutes after sunset. Brown long-eared bat recorded 53 minutes after sunset. Myotis sp. Recorded 66 minutes after sunset.	Common pipistrelle Serotine Pipistrellus sp. Leisler's bat Brown long-eared bat Soprano pipistrelle Myotis sp. Barbastelle Noctule	115	Common pipistrelle (64) Serotine (9) Pipistrellus sp. (9) Leisler's bat (20) Brown long-eared bat (3) Soprano pipistrelle (3) Myotis sp. (4) Barbastelle (1) Noctule (2)
		24/04/17	20:23	Common pipistrelle recorded 26 minutes after sunset. Pipistrellus sp. Recorded 35 minutes after sunset.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Leisler's bat	17	Common pipistrelle (8) Pipistrellus sp. (5) Soprano pipistrelle (3) Leisler's bat (1)
	May	24/05/17	21:08	Common pipistrelle recorded 29 minutes after sunset. Pipistrellus sp. Recorded 32 minutes after sunset. Myotis sp. Recorded 61 minutes after sunset.	Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Noctule Unknown Leisler's bat Myotis sp. Serotine Brown long-eared bat Lesser horseshoe bat Barbastelle Soprano pipistrelle	254	Common pipistrelle (54) Pipistrellus sp. (39) Serotine/Nyctalus sp. (27) Noctule (16) Unknown (9) Leisler's bat (86) Myotis sp. (11) Serotine (7) Brown long-eared bat (1) Lesser horseshoe bat (1) Barbastelle (2) Soprano pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		25/05/17	21:09	Noctule recorded 29 minutes after sunset. Pipistrellus sp. Recorded 33 minutes after sunset. Brown long-eared bat recorded 51 minutes after sunset.	Noctule Pipistrellus sp. Common pipistrelle Unknown Brown long-eared bat Leisler's bat Soprano pipistrelle Myotis sp. Serotine Serotine/Nyctalus sp.	145	Noctule (5) Pipistrellus sp. (24) Common pipistrelle (41) Unknown (4) Brown long-eared bat (7) Leisler's bat (40) Soprano pipistrelle (1) Myotis sp. (4) Serotine (1) Serotine/Nyctalus sp. (18)
		26/05/17	21:10	Pipistrellus sp. Recorded 40 minutes after sunset. Common pipistrelle recorded 43 minutes after sunset.	Unknown Pipistrellus sp. Common pipistrelle Leisler's bat Soprano pipistrelle Serotine/Nyctalus sp. Noctule	36	Unknown (2) Pipistrellus sp. (9) Common pipistrelle (6) Leisler's bat (10) Soprano pipistrelle (7) Serotine/Nyctalus sp. (1) Noctule (1)
		27/05/17	21:12	Common pipistrelle recorded 27 minutes after sunset. Myotis sp. Recorded 57 minutes after sunset.	Common pipistrelle Unknown Noctule Myotis sp. Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Pipistrellus sp. Soprano pipistrelle	188	Common pipistrelle (85) Unknown (18) Noctule (8) Myotis sp. (14) Leisler's bat (43) Serotine/Nyctalus sp. (4) Brown long-eared bat (4) Pipistrellus sp. (6) Soprano pipistrelle (6)
		28/05/17	21:13	Common pipistrelle recorded 28 minutes after sunset. Pipistrellus sp. 31 minutes after sunset. Brown long-eared bat recorded 44 minutes after sunset. Myotis sp. Recorded 54 minutes after sunset.	Barbastelle Common pipistrelle Pipistrellus sp. Brown long-eared bat Leisler's bat Myotis sp. Serotine/Nyctalus sp. Noctule	76	Barbastelle (1) Common pipistrelle (25) Pipistrellus sp. (8) Brown long-eared bat (2) Leisler's bat (27) Myotis sp. (3) Serotine/Nyctalus sp. (9) Noctule (1)
		29/05/17	21:14	Common pipistrelle recorded 20 minutes after sunset.	Barbastelle Common pipistrelle	143	Barbastelle (1) Common pipistrelle (51)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Pipistrellus sp. Recorded 24 minutes after sunset. Barbastelle recorded 34 minutes after sunset. Myotis sp. Recorded 43 minutes after sunset. Brown long-eared bat recorded 44 minutes after sunset.	Serotine Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Myotis sp. Pipistrellus sp. Noctule Unknown		Serotine (2) Leisler's bat (47) Serotine/Nyctalus sp. (19) Brown long-eared bat (1) Myotis sp. (8) Pipistrellus sp. (5) Noctule (7) Unknown (2)
		30/05/17	21:15	Soprano pipistrelle recorded 29 minutes after sunset. Pipistrellus sp. Recorded 29 minutes after sunset. Common pipistrelle 35 minutes after sunset. Barbastelle recorded 40 minutes after sunset. Myotis sp. Recorded 43 minutes after sunset. Brown long-eared recorded 53 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Barbastelle Myotis sp. Brown long-eared bat Leisler's bat Serotine Serotine/Nyctalus sp. Unknown Noctule Lesser horseshoe bat	119	Soprano pipistrelle (3) Pipistrellus sp. (12) Common pipistrelle (28) Barbastelle (1) Myotis sp. (15) Brown long-eared bat (3) Leisler's bat (25) Serotine (3) Serotine/Nyctalus sp. (19) Unknown Noctule (5) Lesser horseshoe bat (1)
	June	21/06/17	21:30	Pipistrellus sp. Recorded 33 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset. Soprano pipistrelle recorded 42 minutes after sunset. Myotis sp. Recorded 54 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Barbastelle Leisler's bat Unknown Serotine Noctule	153	Pipistrellus sp. (26) Common pipistrelle (18) Soprano pipistrelle (80) Myotis sp. (6) Serotine/Nyctalus sp. (5) Barbastelle (1) Leisler's bat (5) Unknown (5) Serotine (4) Noctule (3)
		22/06/17	21:30	Pipistrellus sp. Recorded 23 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Soprano pipistrelle recorded 35 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Unknown Serotine Noctule	147	Pipistrellus sp. (9) Common pipistrelle (35) Soprano pipistrelle (62) Unknown (7) Serotine (15) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. Recorded 52 minutes after sunset.	Myotis sp. Serotine/Nyctalus sp. Brown long-eared bat Leisler's bat		Myotis sp. (10) Serotine/Nyctalus sp. (3) Brown long-eared bat (4) Leisler's bat (1)
		23/06/17	21:30	Pipistrellus sp. Recorded 32 minutes after sunset.	Serotine/Nyctalus sp. Serotine Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	147	Serotine/Nyctalus sp. (2) Serotine (17) Myotis sp. (4) Leisler's bat (3) Common pipistrelle (42) Soprano pipistrelle (64) Pipistrellus sp. (11) Unknown (4)
		24/06/17	21:30	Noctule recorded 14 minutes after sunset. Common pipistrelle recorded 19 minutes after sunset. Pipistrellus sp. Recorded 20 minutes after sunset. Myotis sp. Recorded 42 minutes after sunset.	Noctule Common pipistrelle Pipistrellus sp. Myotis sp. Unknown Soprano pipistrelle Lesser horseshoe bat Serotine Leisler's bat	56	Noctule (2) Common pipistrelle (20) Pipistrellus sp. (8) Myotis sp. (4) Unknown (3) Soprano pipistrelle (8) Lesser horseshoe bat (5) Serotine (2) Leisler's bat (4)
		25/06/17	21:31	Pipistrellus sp. Recorded 25 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Myotis sp. Recorded 49 minutes after sunset.	Pipistrellus sp. Common pipistrelle Unknown Myotis sp. Soprano pipistrelle Serotine/Nyctalus sp. Lesser horseshoe bat Serotine Noctule	257	Pipistrellus sp. (53) Common pipistrelle (113) Unknown (6) Myotis sp. (12) Soprano pipistrelle (61) Serotine/Nyctalus sp. (6) Lesser horseshoe bat (1) Serotine (3) Noctule (2)
		26/06/17	21:30	Pipistrellus sp. Recorded 28 minutes after sunset. Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Unknown Noctule	157	Pipistrellus sp. (19) Common pipistrelle (66) Soprano pipistrelle (52) Myotis sp. (11) Unknown Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. Recorded 46 minutes after sunset.	Serotine/Nyctalus sp. Leisler's bat Lesser horseshoe bat		Serotine/Nyctalus sp. (1) Leisler's bat (2) Lesser horseshoe bat (1)
		27/06/17	21:30	Soprano pipistrelle recorded 23 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset. Myotis sp. Recorded 51 minutes after sunset.	Soprano pipistrelle Common pipistrelle Myotis sp. Unknown	11	Soprano pipistrelle (5) Common pipistrelle (2) Myotis sp. (3) Unknown (1)
	July	20/07/17	21:15	None recorded within limit.	Serotine/Nyctalus sp. Unknown	2	Serotine/Nyctalus sp. (1) Unknown (1)
		21/07/17	21:14	Myotis sp. Recorded 55 minutes after sunset.	Myotis sp. Common pipistrelle	3	Myotis sp. (1) Common pipistrelle (2)
		22/07/17	21:12	None recorded within the limit.	Common pipistrelle Unknown Myotis sp. Barbastelle Soprano pipistrelle	9	Common pipistrelle (3) Unknown (1) Myotis sp. (2) Barbastelle (2) Soprano pipistrelle (1)
		23/07/17	21:11	Common pipistrelle recorded 37 minutes after sunset. Soprano pipistrelle recorded 65 minutes after sunset.	Common pipistrelle Unknown Soprano pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp.	53	Common pipistrelle (30) Unknown (11) Soprano pipistrelle (2) Myotis sp. (2) Leisler's bat (2) Serotine/Nyctalus sp. (6)
		24/07/17	21:10	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 38 minutes after sunset. Myotis sp. Recorded 70 minutes after sunset.	Common pipistrelle Noctule Soprano pipistrelle Unknown Myotis sp. Leisler's bat Serotine Serotine/Nyctalus sp.	58	Common pipistrelle (35) Noctule (2) Soprano pipistrelle (2) Unknown (7) Myotis sp. (7) Leisler's bat (3) Serotine (1) Serotine/Nyctalus sp. (1)
		25/07/17	21:08	Common pipistrelle recorded 44 minutes after sunset.	Common pipistrelle Leisler's bat Soprano pipistrelle Pipistrellus sp.	27	Common pipistrelle (12) Leisler's bat (6) Soprano pipistrelle (2) Pipistrellus sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Unknown Serotine/Nyctalus sp.		Myotis sp. (2) Unknown (1) Serotine/Nyctalus sp. (2)
		26/07/17	21:07	Common pipistrelle recorded 42 minutes after sunset. Myotis sp. Recorded 59 minutes after sunset.	Common pipistrelle Myotis sp. Unknown	7	Common pipistrelle (4) Myotis sp. (1) Unknown (2)
	August	17/08/17	20:29	Noctule recorded 23 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset. Myotis sp. Recorded 60 minutes after sunset.	Noctule Common pipistrelle Soprano pipistrelle Myotis sp. Unknown Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp.	356	Noctule (6) Common pipistrelle (61) Soprano pipistrelle (89) Myotis sp. (30) Unknown (15) Leisler's bat (11) Serotine/Nyctalus sp. (5) Pipistrellus sp. (139)
		18/08/17	20:27	Common pipistrelle recorded 43 minutes after sunset. Myotis sp. Recorded 63 minutes after sunset.	Leisler's bat Noctule Common pipistrelle Pipistrellus sp. Unknown Serotine/Nyctalus sp. Myotis sp. Soprano pipistrelle Lesser horseshoe bat	248	Leisler's bat (38) Noctule (4) Common pipistrelle (75) Pipistrellus sp. (44) Unknown (12) Serotine/Nyctalus sp. (7) Myotis sp. (55) Soprano pipistrelle (10) Lesser horseshoe bat (2)
		19/08/17	20:25	Myotis sp. Recorded 48 minutes after sunset.	Leisler's bat Noctule Common pipistrelle Myotis sp. Soprano pipistrelle Pipistrellus sp. Unknown Serotine/Nyctalus sp. Serotine	249	Leisler's bat (6) Noctule (3) Common pipistrelle (97) Myotis sp. (32) Soprano pipistrelle (30) Pipistrellus sp. (45) Unknown (25) Serotine/Nyctalus sp. (10) Serotine (1)
		20/08/17	20:23	Noctule recorded 2 minutes after sunset.	Noctule Leisler's bat Myotis sp.	47	Noctule (8) Leisler's bat (28) Myotis sp. (5)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Leisler's recorded 4 minutes after sunset. Myotis sp. Recorded 23 minutes after sunset.	Unknown Serotine/Nyctalus sp. Common pipistrelle		Unknown (1) Serotine/Nyctalus sp. (2) Common pipistrelle (3)
		21/08/17	20:21	Brown long-eared bat recorded 37 minutes after sunset. Myotis sp. Recorded 56 minutes after sunset.	Brown long-eared bat Leisler's bat Myotis sp. Common pipistrelle Unknown Pipistrellus sp. Serotine Noctule Serotine/Nyctalus sp. Lesser horseshoe bat Soprano pipistrelle	354	Brown long-eared bat (3) Leisler's bat (56) Myotis sp. (26) Common pipistrelle (137) Unknown (25) Pipistrellus sp. (58) Serotine (1) Noctule (7) Serotine/Nyctalus sp. (32) Lesser horseshoe bat (1) Soprano pipistrelle (7)
		22/08/17	20:19	Noctule recorded 21 minutes after sunset. Brown long-eared bat recorded 26 minutes after sunset. Myotis sp. Recorded 62 minutes after sunset.	Noctule Brown long-eared bat Unknown Common pipistrelle Leisler's bat Myotis sp. Pipistrellus sp. Serotine/Nyctalus sp. Soprano pipistrelle	91	Noctule (12) Brown long-eared bat (2) Unknown (10) Common pipistrelle (18) Leisler's bat (17) Myotis sp. (11) Pipistrellus sp. (3) Serotine/Nyctalus sp. (10) Soprano pipistrelle (6)
	September	13/09/17	19:30	Soprano pipistrelle recorded 25 minutes after sunset. Barbastelle recorded 39 minutes after sunset. Myotis sp. Recorded 58 minutes sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Barbastelle Myotis sp. Common pipistrelle Unknown Noctule Leisler's bat	61	Soprano pipistrelle (13) Serotine/Nyctalus sp. (4) Barbastelle (1) Myotis sp. (28) Common pipistrelle (20) Unknown (2) Noctule (2) Leisler's bat (6)
		14/09/17	19:28	Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 41 minutes after sunset.	Common pipistrelle Leisler's bat Soprano pipistrelle Serotine	134	Common pipistrelle (25) Leisler's bat (4) Soprano pipistrelle (16) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. Recorded 53 minutes after sunset.	Myotis sp. Unknown Serotine/Nyctalus sp.		Myotis sp. (83) Unknown (4) Serotine/Nyctalus sp. (1)
		15/09/17	19:26	Common pipistrelle recorded 31 minutes after sunset. Pipistrellus sp. Recorded 31 minutes after sunset. Soprano pipistrelle recorded 33 minutes. Myotis sp. 68 minutes after sunset.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Myotis sp. Unknown Barbastelle Serotine/Nyctalus sp.	48	Common pipistrelle (6) Pipistrellus sp. (2) Soprano pipistrelle (5) Myotis sp. (28) Unknown (4) Barbastelle (2) Serotine/Nyctalus sp. (1)
		16/09/17	19:24	None recorded within the limit.	Noctule Myotis sp. Leisler's bat Serotine/Nyctalus sp.	10	Noctule (1) Myotis sp. (5) Leisler's bat (2) Serotine/Nyctalus sp. (2)
		17/09/17	19:21	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset. Myotis sp. Recorded 50 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Serotine Serotine/Nyctalus sp. Myotis sp. Noctule Leisler's bat Lesser horseshoe bat Unknown	118	Soprano pipistrelle (16) Common pipistrelle (5) Pipistrellus sp. (2) Serotine (2) Serotine/Nyctalus sp. (6) Myotis sp. (59) Noctule (3) Leisler's bat (5) Lesser horseshoe bat (4) Unknown (2)
		18/09/17	19:19	Soprano pipistrelle recorded 12 minutes after sunset. Myotis sp. Recorded 49 minutes after sunset.	Soprano pipistrelle Leisler's bat Myotis sp. Common pipistrelle Pipistrellus sp. Brown long-eared bat Lesser horseshoe bat Unknown	107	Soprano pipistrelle (17) Leisler's bat (4) Myotis sp. (75) Common pipistrelle (17) Pipistrellus sp. (2) Brown long-eared bat (1) Lesser horseshoe bat (1) Unknown (1)
		19/09/17	19:17	Soprano pipistrelle recorded 10 minutes prior to sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp.	84	Soprano pipistrelle (27) Common pipistrelle (17) Pipistrellus sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 16 minutes after sunset.	Unknown Serotine Leisler's bat Noctule Serotine/Nyctalus sp. Myotis sp. Brown long-eared bat		Unknown (3) Serotine (2) Leisler's bat (6) Noctule (1) Serotine/Nyctalus sp. (4) Myotis sp. (20) Brown long-eared bat (2)
Offline 4b	April	19/04/17	20:14	Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 46 minutes after sunset. Brown long-eared bat recorded 49 minutes after sunset.	Soprano pipistrelle Common pipistrelle Brown long-eared bat Leisler's bat Noctule	12	Soprano pipistrelle (4) Common pipistrelle (2) Brown long-eared bat (4) Leisler's bat (1) Noctule (1)
		20/04/17	20:16	Brown long-eared bat recorded 35 minutes after sunset. Common pipistrelle recorded 38 minutes after sunset. Soprano pipistrelle recorded 39 minutes after sunset. Lesser horseshoe bat recorded 39 minutes after sunset. Brown long-eared bat recorded 40 minutes after sunset.	Brown long-eared bat Common pipistrelle Soprano pipistrelle Lesser horseshoe bat Pipistrellus sp. Noctule Myotis sp. Serotine/Nyctalus sp. Unknown	52	Brown long-eared bat (16) Common pipistrelle (7) Soprano pipistrelle (14) Lesser horseshoe bat (1) Pipistrellus sp. (5) Noctule (3) Myotis sp. (4) Serotine/Nyctalus sp. (10) Unknown (1)
		21/04/17	20:18	Soprano pipistrelle recorded 31 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Brown long-eared bat recorded 38 minutes after sunset.	Soprano pipistrelle Common pipistrelle Brown long-eared bat Pipistrellus sp. Leisler's bat Noctule Serotine/Nyctalus sp. Myotis sp. Barbastelle Lesser horseshoe bat	57	Soprano pipistrelle (15) Common pipistrelle (13) Brown long-eared bat (14) Pipistrellus sp. (4) Leisler's bat (3) Noctule (3) Serotine/Nyctalus sp. (1) Myotis sp. (2) Barbastelle (1) Lesser horseshoe bat (1)
		22/04/17	20:19	Common pipistrelle recorded 35 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp.	33	Common pipistrelle (18) Soprano pipistrelle (8) Pipistrellus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 38 minutes after sunset. Brown long-eared bat 72 minutes after sunset.	Serotine Leisler's bat Brown long-eared bat Myotis sp. Noctule Serotine/Nyctalus sp.		Serotine (1) Leisler's bat (1) Brown long-eared bat (1) Myotis sp. (1) Noctule (1) Serotine/Nyctalus sp. (1)
		23/04/17	20:21	Soprano pipistrelle recorded 30 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset. Brown long-eared bat 42 minutes after sunset.	Soprano pipistrelle Serotine Common pipistrelle Brown long-eared bat Pipistrellus sp. Leisler's bat Noctule Myotis sp.	32	Soprano pipistrelle (8) Serotine (1) Common pipistrelle (6) Brown long-eared bat (11) Pipistrellus sp. (1) Leisler's bat (2) Noctule (2) Myotis sp. (1)
		24/04/17	20:23	Common pipistrelle 33 minutes recorded after sunset. Brown long-eared bat recorded 57 minutes after sunset. Myotis sp. Recorded 81 minutes after sunset.	Common pipistrelle Brown long-eared bat Noctule Myotis sp. Lesser horseshoe bat Pipistrellus sp. Soprano pipistrelle	79	Common pipistrelle (55) Brown long-eared bat (10) Noctule (3) Myotis sp. (6) Lesser horseshoe bat (3) Pipistrellus sp. (1) Soprano pipistrelle (1)
	May	24/05/17	21:08	Soprano pipistrelle recorded 27 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Myotis sp. Recorded 56 minutes after sunset. Brown long-eared bat recorded 59 minutes after sunset.	Soprano pipistrelle Unknown Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Brown long-eared bat Pipistrellus sp. Noctule Serotine	41	Soprano pipistrelle (19) Unknown (5) Common pipistrelle (5) Serotine/Nyctalus sp. (4) Myotis sp. (2) Brown long-eared bat (2) Pipistrellus sp. (1) Noctule (2) Serotine (1)
		25/05/17	21:09	Soprano pipistrelle recorded 33 minutes after sunset. Myotis sp. Recorded 68 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Myotis sp. Brown long-eared bat Pipistrellus sp.	73	Soprano pipistrelle (22) Serotine/Nyctalus sp. (16) Leisler's bat (12) Myotis sp. (1) Brown long-eared bat (11) Pipistrellus sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Noctule Unknown		Common pipistrelle (7) Noctule (1) Unknown (1)
		26/05/17	21:10	Common pipistrelle recorded 47 minutes after sunset. Brown long-eared bat recorded 75 minutes after sunset.	Common pipistrelle Unknown Soprano pipistrelle Brown long-eared bat Leisler's bat Serotine/Nyctalus sp. Serotine	16	Common pipistrelle (3) Unknown (2) Soprano pipistrelle (1) Brown long-eared bat (2) Leisler's bat (2) Serotine/Nyctalus sp. (5) Serotine (1)
		27/05/17	21:12	Soprano pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 34 minutes after sunset.	Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Unknown Noctule Leisler's bat Common pipistrelle Serotine Pipistrellus sp. Brown long-eared bat	49	Soprano pipistrelle (21) Myotis sp. (4) Serotine/Nyctalus sp. (8) Unknown (6) Noctule (1) Leisler's bat (1) Common pipistrelle (5) Serotine (1) Pipistrellus sp. (1) Brown long-eared bat (1)
		28/05/17	21:13	Soprano pipistrelle recorded 31 minutes after sunset. Brown long-eared bat recorded 54 minutes after sunset.	Soprano pipistrelle Brown long-eared b at Serotine/Nyctalus sp. Leisler's bat Common pipistrelle	36	Soprano pipistrelle (12) Brown long-eared bat (4) Serotine/Nyctalus sp. (3) Leisler's bat (16) Common pipistrelle (1)
		29/05/17	21:14	Soprano pipistrelle recorded 20 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset.	Soprano pipistrelle Common pipistrelle Leisler's bat Pipistrellus sp. Unknown Serotine/Nyctalus sp. Brown long-eared bat Myotis sp.	88	Soprano pipistrelle (33) Common pipistrelle (17) Leisler's bat (22) Pipistrellus sp. (2) Unknown (5) Serotine/Nyctalus sp. (2) Brown long-eared bat (4) Myotis sp. (3)
		30/05/17	21:15	Soprano pipistrelle recorded 18 minutes after sunset.	Soprano pipistrelle Unknown Serotine/Nyctalus sp.	58	Soprano pipistrelle (12) Unknown (9) Serotine/Nyctalus sp. (7)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 38 minutes after sunset. Brown long-eared bat recorded 44 minutes after sunset. Barbastelle recorded 51 minutes after sunset. Myotis sp. Recorded 60 minutes after sunset.	Common pipistrelle Brown long-eared bat Barbastelle Myotis sp. Leisler's bat Noctule Pipistrellus sp.		Common pipistrelle (10) Brown long-eared bat (8) Barbastelle (1) Myotis sp. (5) Leisler's bat (3) Noctule (1) Pipistrellus sp. (2)
	June	21/06/17	21:30	Common pipistrelle recorded 37 minutes after sunset. Myotis sp. Recorded 53 minutes after sunset. Brown long-eared bat recorded 68 minutes after sunset.	Common pipistrelle Unknown Myotis sp. Brown long-eared bat Serotine Leisler's bat Noctule Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp.	46	Common pipistrelle (12) Unknown (4) Myotis sp. (1) Brown long-eared bat (1) Serotine (10) Leisler's bat (8) Noctule (1) Pipistrellus sp. (1) Soprano pipistrelle (2) Serotine/Nyctalus sp. (6)
		22/06/17	21:30	Common pipistrelle recorded 25 minutes after sunset.	Common pipistrelle Pipistrellus sp. Unknown Myotis sp. Soprano pipistrelle Serotine Serotine/Nyctalus sp. Lesser horseshoe bat	30	Common pipistrelle (16) Pipistrellus sp. (3) Unknown (3) Myotis sp. (2) Soprano pipistrelle (2) Serotine (1) Serotine/Nyctalus sp. (1) Lesser horseshoe bat (2)
		23/06/17	21:30	Common pipistrelle recorded 25 minutes after sunset. Barbastelle recorded 49 minutes after sunset. Myotis sp. Recorded 53 minutes after sunset.	Common pipistrelle Barbastelle Unknown Myotis sp. Leisler's bat Serotine/Nyctalus sp. Lesser horseshoe bat Pipistrellus sp. Serotine	20	Common pipistrelle (7) Barbastelle (1) Unknown (5) Myotis sp. (2) Leisler's bat (1) Serotine/Nyctalus sp. (1) Lesser horseshoe bat (1) Pipistrellus sp. (1) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		24/06/17	21:30	Common pipistrelle recorded 28 minutes after sunset. Soprano pipistrelle recorded 34 minutes after sunset. Myotis sp. Recorded 60 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Myotis sp. Serotine/Nyctalus sp. Lesser horseshoe bat Unknown	44	Common pipistrelle (33) Soprano pipistrelle (2) Pipistrellus sp. (1) Myotis sp. (2) Serotine/Nyctalus sp. (1) Lesser horseshoe bat (1) Unknown (4)
		25/06/17	21:31	Common pipistrelle recorded 29 minutes after sunset. Myotis sp. Recorded 64 minutes after sunset.	Common pipistrelle Soprano pipistrelle Myotis sp. Serotine Unknown Noctule Pipistrellus sp. Serotine/Nyctalus sp.	17	Common pipistrelle (7) Soprano pipistrelle (2) Myotis sp. (2) Serotine (1) Unknown (1) Noctule (1) Pipistrellus sp. (2) Serotine/Nyctalus sp. (1)
		26/06/17	21:30	Common pipistrelle recorded 22 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 58 minutes after sunset.	Common pipistrelle Unknown Soprano pipistrelle Myotis sp. Serotine Leisler's bat Pipistrellus sp. Serotine/Nyctalus sp.	21	Common pipistrelle (8) Unknown (2) Soprano pipistrelle (1) Myotis sp. (2) Serotine (2) Leisler's bat (3) Pipistrellus sp. (2) Serotine/Nyctalus sp. (2)
		27/06/17	21:30	Common pipistrelle recorded 23 minutes after sunset. Soprano pipistrelle recorded 40 minutes after sunset.	Common pipistrelle Soprano pipistrelle	6	Common pipistrelle (4) Soprano pipistrelle (2)
	July	20/07/17	21:15	Common pipistrelle recorded 43 minutes after sunset. Myotis sp. Recorded 60 minutes after sunset.	Common pipistrelle Myotis sp. Unknown Leisler's bat Noctule Pipistrellus sp. Lesser horseshoe bat Soprano pipistrelle Serotine/Nyctalus sp.	86	Common pipistrelle (38) Myotis sp. (13) Unknown (6) Leisler's bat (4) Noctule (1) Pipistrellus sp. (19) Lesser horseshoe bat (1) Soprano pipistrelle (1) Serotine/Nyctalus sp. (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		21/07/17	21:14	Common pipistrelle recorded 26 minutes after sunset.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp. Unknown Myotis sp. Lesser horseshoe bat Leisler's bat	43	Common pipistrelle (25) Pipistrellus sp. (2) Soprano pipistrelle (5) Serotine/Nyctalus sp. (1) Unknown (3) Myotis sp. (5) Lesser horseshoe bat (1) Leisler's bat (1)
		22/07/17	21:12	Common pipistrelle recorded 37 minutes after sunset. Soprano pipistrelle recorded 40 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Myotis sp. Unknown Brown long-eared bat Lesser horseshoe bat Serotine/Nyctalus sp.	86	Common pipistrelle (56) Soprano pipistrelle (3) Pipistrellus sp. (2) Myotis sp. (14) Unknown (6) Brown long-eared bat (3) Lesser horseshoe bat (1) Serotine/Nyctalus sp. (1)
		23/07/17	21:11	Soprano pipistrelle recorded 41 minutes after sunset. Myotis sp. Recorded 65 minutes after sunset.	Unknown Soprano pipistrelle Serotine/Nyctalus sp. Common pipistrelle Leisler's bat Myotis sp. Pipistrellus sp. Lesser horseshoe bat Noctule	289	Unknown (12) Soprano pipistrelle (2) Serotine/Nyctalus sp. (4) Common pipistrelle (173) Leisler's bat (28) Myotis sp. (52) Pipistrellus sp. (15) Lesser horseshoe bat (2) Noctule (1)
		24/07/17	21:10	Soprano pipistrelle recorded 34 minutes after sunset. Myotis sp. Recorded 85 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Unknown Leisler's bat Myotis sp. Common pipistrelle Serotine Lesser horseshoe bat Serotine/Nyctalus sp.	88	Soprano pipistrelle (5) Pipistrellus sp. (10) Unknown (8) Leisler's bat (10) Myotis sp. (13) Common pipistrelle (37) Serotine (2) Lesser horseshoe bat (1) Serotine/Nyctalus sp. (2)
		25/07/17	21:08	Soprano pipistrelle recorded 22 minutes after sunset.	Soprano pipistrelle Common pipistrelle	232	Soprano pipistrelle (62) Common pipistrelle (80)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 38 minutes after sunset. Myotis sp. Recorded 53 minutes after sunset.	Pipistrellus sp. Unknown Myotis sp. Serotine/Nyctalus sp. Lesser horseshoe bat Brown long-eared bat Noctule Leisler's bat		Pipistrellus sp. (37) Unknown (9) Myotis sp. (16) Serotine/Nyctalus sp. (11) Lesser horseshoe bat (1) Brown long-eared bat (1) Noctule (1) Leisler's bat (14)
		26/07/17	21:07	Soprano pipistrelle recorded 27 minutes after sunset. Common pipistrelle recorded 38 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Leisler's bat Myotis sp. Unknown Lesser horseshoe bat Serotine/Nyctalus sp. Noctule	112	Soprano pipistrelle (9) Common pipistrelle (58) Pipistrellus sp. (11) Leisler's bat (3) Myotis sp. (23) Unknown (4) Lesser horseshoe bat (2) Serotine/Nyctalus sp. (1) Noctule (1)
	August	24/08/17	20:14	Soprano pipistrelle recorded 17 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Leisler's bat Myotis sp. Pipistrellus sp. Serotine Unknown Brown long-eared bat	37	Soprano pipistrelle (6) Common pipistrelle (9) Serotine/Nyctalus sp. (5) Leisler's bat (4) Myotis sp. (6) Pipistrellus sp. (2) Serotine (1) Unknown (3) Brown long-eared bat (1)
		25/08/17	20:12	Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 38 minutes after sunset.	Common pipistrelle Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Myotis sp. Unknown	19	Common pipistrelle (2) Soprano pipistrelle (9) Serotine/Nyctalus sp. (1) Leisler's bat (1) Myotis sp. (4) Unknown (2)
		26/08/17	20:10	Noctule recorded 22 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset.	Noctule Soprano pipistrelle Common pipistrelle Unknown	29	Noctule (3) Soprano pipistrelle (10) Common pipistrelle (2) Unknown (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 28 minutes after sunset.	Serotine/Nyctalus sp. Myotis sp. Leisler's bat Serotine Pipistrellus sp.		Serotine/Nyctalus sp. (4) Myotis sp. (2) Leisler's bat (2) Serotine (2) Pipistrellus sp. (1)
		27/08/17	20:08	Soprano pipistrelle recorded 31 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine Noctule Leisler's bat Myotis sp. Pipistrellus sp. Unknown	25	Soprano pipistrelle (8) Common pipistrelle (3) Serotine (1) Noctule (2) Leisler's bat (5) Myotis sp. (3) Pipistrellus sp. (2) Unknown (1)
		28/08/17	20:06	Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 31 minutes after sunset. Pipistrellus sp. Recorded 31 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Unknown Leisler's bat Myotis sp. Noctule Serotine/Nyctalus sp.	57	Soprano pipistrelle (6) Common pipistrelle (27) Pipistrellus sp. (8) Unknown (3) Leisler's bat (2) Myotis sp. (6) Noctule (2) Serotine/Nyctalus sp. (3)
		29/08/17	20:04	Soprano pipistrelle recorded 20 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Unknown Myotis sp. Serotine/Nyctalus sp. Leisler's bat Barbastelle Serotine	142	Soprano pipistrelle (25) Common pipistrelle (82) Pipistrellus sp. (8) Unknown (10) Myotis sp. (4) Serotine/Nyctalus sp. (10) Leisler's bat (1) Barbastelle (1) Serotine (1)
		30/08/17	20:02	Common pipistrelle recorded 28 minutes after sunset. Soprano pipistrelle recorded 38 minutes after sunset.	Common pipistrelle Soprano pipistrelle Leisler's bat Pipistrellus sp. Barbastelle Serotine/Nyctalus sp.	31	Common pipistrelle (22) Soprano pipistrelle (5) Leisler's bat (1) Pipistrellus sp. (1) Barbastelle (1) Serotine/Nyctalus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	October	11/10/17	18:28	Soprano pipistrelle recorded 32 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Unknown Myotis sp.	12	Soprano pipistrelle (3) Common pipistrelle (4) Serotine/Nyctalus sp. (2) Unknown (2) Myotis sp. (1)
		12/10/17	18:25	Soprano pipistrelle recorded 32 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp.	8	Soprano pipistrelle (5) Common pipistrelle (1) Serotine/Nyctalus sp. (2)
		13/10/17	18:23	None recorded within the limit.	Common pipistrelle Noctule Serotine/Nyctalus sp. Leisler's bat Myotis sp.	7	Common pipistrelle (3) Noctule (1) Serotine/Nyctalus sp. (1) Leisler's bat (1) Myotis sp. (1)
		14/10/17	18:21	Common pipistrelle recorded 38 minutes after sunset. Soprano pipistrelle 39 minutes after sunset.	Common pipistrelle Soprano pipistrelle Noctule Serotine/Nyctalus sp. Myotis sp.	8	Common pipistrelle (2) Soprano pipistrelle (2) Noctule (1) Serotine/Nyctalus sp. Myotis sp.
		15/10/17	18:19	None recorded within limit.	Serotine/Nyctalus sp. Noctule Myotis sp. Brown long-eared bat	11	Serotine/Nyctalus sp. (6) Noctule (1) Myotis sp. (1) Brown long-eared bat (3)
		16/10/17	18:17	None recorded within the limit.	Myotis sp.	2	Myotis sp. (2)
		17/10/17	18:15	None recorded within the limit.	Soprano pipistrelle Serotine/Nyctalus sp.	4	Soprano pipistrelle (3) Serotine/Nyctalus sp. (1)
		18/10/17	18:13	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 37 minutes after sunset.	Common pipistrelle Soprano pipistrelle Serotine/Nyctalus sp. Myotis sp.	8	Common pipistrelle (1) Soprano pipistrelle (1) Serotine/Nyctalus sp. (4) Myotis sp. (2)
Offline 4c	April	19/04/17	20:14	Soprano pipistrelle recorded 22 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Brown long-eared bat recorded 75 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown Brown long-eared bat Serotine	17	Common pipistrelle (7) Soprano pipistrelle (3) Pipistrellus sp. (1) Unknown (1) Brown long-eared bat (4) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		20/04/17	20:16	Soprano pipistrelle recorded 20 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Brown long-eared bat recorded 37 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Brown long-eared bat Unknown Serotine/Nyctalus sp. Leisler's bat Myotis sp.	63	Soprano pipistrelle (32) Common pipistrelle (18) Pipistrellus sp. (4) Brown long-eared bat (1) Unknown (1) Serotine/Nyctalus sp. (2) Leisler's bat (3) Myotis sp. (2)
		21/04/17	20:18	Common pipistrelle recorded 21 minutes after sunset. Soprano pipistrelle recorded 21 minutes after sunset. Pipistrellus sp. Recorded 22 minutes after sunset. Brown long-eared bat recorded 30 minutes after sunset.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp. Brown long-eared bat Noctule Serotine Leisler's bat	95	Common pipistrelle (58) Pipistrellus sp. (7) Soprano pipistrelle (15) Serotine/Nyctalus sp. (5) Brown long-eared bat (4) Noctule (2) Serotine (1) Leisler's bat (3)
		22/04/17	20:19	Soprano pipistrelle recorded 27 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset.	Soprano pipistrelle Common pipistrelle Leisler's bat Unknown Pipistrellus sp. Serotine/Nyctalus sp. Barbastelle	29	Soprano pipistrelle (4) Common pipistrelle (11) Leisler's bat (6) Unknown (2) Pipistrellus sp. (2) Serotine/Nyctalus sp. (3) Barbastelle (1)
		23/04/17	20:21	Soprano pipistrelle recorded 21 minutes after sunset. Common pipistrelle recorded 22 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Myotis sp.	47	Soprano pipistrelle (2) Common pipistrelle (42) Serotine/Nyctalus sp. (2) Myotis sp. (1)
		24/04/17	20:23	Soprano pipistrelle recorded 17 minutes after sunset. Pipistrellus sp. Recorded 18 minutes after sunset. Common pipistrelle recorded 21 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Unknown Serotine/Nyctalus sp. Brown long-eared bat Myotis sp.	88	Soprano pipistrelle (14) Pipistrellus sp. (32) Common pipistrelle (37) Unknown (1) Serotine/Nyctalus sp. (2) Brown long-eared bat (1) Myotis sp. (1)
		25/04/17	20:24	None recorded within the limit.	Pipistrellus sp.	1	Pipistrellus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	May	24/05/17	21:08	Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Myotis sp. Recorded 46 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Noctule Myotis sp. Serotine/Nyctalus sp. Leisler's bat Serotine Pipistrellus sp.	83	Soprano pipistrelle (13) Common pipistrelle (5) Unknown (8) Noctule (9) Myotis sp. (11) Serotine/Nyctalus sp. (30) Leisler's bat (1) Serotine (4) Pipistrellus sp. (2)
		25/05/17	21:09	Soprano pipistrelle recorded 37 minutes after sunset. Common pipistrelle recorded 39 minutes after sunset.	Unknown Soprano pipistrelle Common pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp. Noctule	71	Unknown (11) Soprano pipistrelle (23) Common pipistrelle (4) Myotis sp. (3) Leisler's bat (4) Serotine/Nyctalus sp. (20) Pipistrellus sp. (2) Noctule (4)
		26/05/17	21:10	Common pipistrelle 33 minutes after sunset. Soprano pipistrelle recorded 36 minutes after sunset. Myotis sp. Recorded 68 minutes after sunset.	Common pipistrelle Soprano pipistrelle Leisler's bat Noctule Serotine Unknown Serotine/Nyctalus sp. Myotis sp. Pipistrellus sp.	79	Common pipistrelle (3) Soprano pipistrelle (21) Leisler's bat (3) Noctule (2) Serotine (2) Unknown (18) Serotine/Nyctalus sp. (26) Myotis sp. (4) Pipistrellus sp. (2)
		27/05/17	21:12	Soprano pipistrelle recorded 37 minutes after sunset. Common pipistrelle recorded 40 minutes after sunset. Myotis sp. Recorded 58 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Noctule Serotine Myotis sp. Pipistrellus sp. Serotine/Nyctalus sp.	49	Soprano pipistrelle (12) Common pipistrelle (4) Unknown (9) Noctule (9) Serotine (1) Myotis sp. (6) Pipistrellus sp. (3) Serotine/Nyctalus sp. (5)
		28/05/17	21:13	Soprano pipistrelle recorded 23 minutes after sunset.	Soprano pipistrelle Common pipistrelle	13	Soprano pipistrelle (3) Common pipistrelle (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 32 minutes after sunset.	Unknown Serotine/Nyctalus sp. Noctule Pipistrellus sp.		Unknown (1) Serotine/Nyctalus sp. (5) Noctule (1) Pipistrellus sp. (1)
		29/05/17	21:14	Noctule recorded 8 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset.	Noctule Common pipistrelle Leisler's bat Serotine/Nyctalus sp. Unknown Soprano pipistrelle Myotis sp.	25	Noctule (3) Common pipistrelle (3) Leisler's bat (1) Serotine/Nyctalus sp. (6) Unknown (9) Soprano pipistrelle (2) Myotis sp. (1)
		30/05/17	21:15	Common pipistrelle recorded 17 minutes after sunset. Soprano pipistrelle recorded 17 minutes after sunset.	Common pipistrelle Soprano pipistrelle Leisler's bat Serotine/Nyctalus sp. Unknown Myotis sp. Pipistrellus sp.	41	Common pipistrelle (4) Soprano pipistrelle (20) Leisler's bat (1) Serotine/Nyctalus sp. (8) Unknown (5) Myotis sp. (2) Pipistrellus sp. (1)
	June	21/06/17	21:30	Soprano pipistrelle recorded 29 minutes after sunset. Common pipistrelle recorded 31 minutes after sunset. Myotis sp. Recorded 40 minutes after sunset.	Soprano pipistrelle Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Leisler's bat Noctule	47	Soprano pipistrelle (12) Common pipistrelle (10) Myotis sp. (13) Serotine/Nyctalus sp. (5) Leisler's bat (6) Noctule (1)
		22/06/17	21:30	Common pipistrelle recorded 26 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset. Myotis sp. Recorded 38 minutes after sunset.	Common pipistrelle Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Unknown Serotine Leisler's bat	54	Common pipistrelle (23) Soprano pipistrelle (9) Myotis sp. (6) Serotine/Nyctalus sp. (4) Unknown (2) Serotine (9) Leisler's bat (1)
		23/06/17	21:30	Soprano pipistrelle recorded 18 minutes after sunset. Common pipistrelle recorded 20 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine Myotis sp. Unknown	53	Soprano pipistrelle (12) Common pipistrelle (18) Serotine (9) Myotis sp. (1) Unknown (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. Recorded 36 minutes after sunset.	Serotine/Nyctalus sp.		Serotine/Nyctalus sp. (7)
		24/06/17	21:30	Myotis sp. Recorded 33 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset.	Myotis sp. Unknown Common pipistrelle Pipistrellus sp. Soprano pipistrelle	54	Myotis sp. (25) Unknown (17) Common pipistrelle (10) Pipistrellus sp. (1) Soprano pipistrelle (1)
		25/06/17	21:31	Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 33 minutes after sunset. Myotis sp. Recorded 47 minutes after sunset.	Common pipistrelle Unknown Soprano pipistrelle Myotis sp. Pipistrellus sp.	105	Common pipistrelle (37) Unknown (8) Soprano pipistrelle (42) Myotis sp. (17) Pipistrellus sp. (1)
		26/06/17	21:30	Common pipistrelle recorded 24 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Unknown Pipistrellus sp. Leisler's bat Myotis sp. Soprano pipistrelle	33	Common pipistrelle (10) Serotine/Nyctalus sp. (2) Unknown (4) Pipistrellus sp. (1) Leisler's bat (2) Myotis sp. (2) Soprano pipistrelle (12)
		27/06/17	21:30	Soprano pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 33 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset.	Soprano pipistrelle Myotis sp. Common pipistrelle Unknown Pipistrellus sp.	71	Soprano pipistrelle (13) Myotis sp. (19) Common pipistrelle (33) Unknown (5) Pipistrellus sp. (1)
	July	20/07/17	21:15	Noctule recorded 18 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset. Myotis sp. Recorded 42 minutes after sunset.	Noctule Common pipistrelle Unknown Myotis sp. Soprano pipistrelle Pipistrellus sp. Serotine/Nyctalus sp.	392	Noctule (1) Common pipistrelle (250) Unknown (66) Myotis sp. (18) Soprano pipistrelle (3) Pipistrellus sp. (51) Serotine/Nyctalus sp. (3)
		21/07/17	21:14	None recorded within the limit.	Common pipistrelle Unknown Myotis sp.	102	Common pipistrelle (56) Unknown (5) Myotis sp. (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle Serotine/Nyctalus sp.		Soprano pipistrelle (37) Serotine/Nyctalus sp. (1)
		22/07/17	21:12	Common pipistrelle recorded 32 minutes after sunset. Myotis sp. Recorded 55 minutes after sunset.	Common pipistrelle Unknown Serotine/Nyctalus sp. Myotis sp. Noctule	41	Common pipistrelle (22) Unknown (9) Serotine/Nyctalus sp. (3) Myotis sp. (6) Noctule (1)
		23/07/17	21:11	Soprano pipistrelle recorded 25 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset.	Serotine/Nyctalus sp. Soprano pipistrelle Unknown Noctule Common pipistrelle Pipistrellus sp. Leisler's bat Myotis sp.	301	Serotine/Nyctalus sp. (2) Soprano pipistrelle (2) Unknown (209) Noctule (3) Common pipistrelle (71) Pipistrellus sp. (8) Leisler's bat (1) Myotis sp. (5)
		24/07/17	21:10	Soprano pipistrelle recorded 30 minutes after sunset. Common pipistrelle recorded 31 minutes after sunset. Myotis sp. recorded 47 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Myotis sp. Serotine/Nyctalus Pipistrellus sp. Noctule	104	Soprano pipistrelle (14) Common pipistrelle (40) Unknown (32) Myotis sp. (5) Serotine/Nyctalus Pipistrellus sp. (3) Noctule (2)
		25/07/17	21:08	Common pipistrelle recorded 30 minutes after sunset. Myotis sp. recorded 52 minutes after sunset.	Noctule Pipistrellus sp. Common pipistrelle Unknown Myotis sp. Serotine/Nyctalus Soprano pipistrelle Leisler's bat Serotine	233	Noctule (5) Pipistrellus sp. (3) Common pipistrelle (179) Unknown (14) Myotis sp. (10) Serotine/Nyctalus (5) Soprano pipistrelle (15) Leisler's bat (1) Serotine (1)
		26/07/17	21:07	Common pipistrelle 31 minutes after sunset	Unknown Common pipistrelle Soprano pipistrelle Myotis sp. Leisler's bat	871	Unknown (59) Common pipistrelle (772) Soprano pipistrelle (26) Myotis sp. (4) Leisler's bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Serotine/Nyctalus		Noctule (8) Serotine/Nyctalus (1)
	September	13/09/17	19:30	Soprano pipistrelle 14 recorded 14 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine Unknown Myotis sp. Serotine/Nyctalus	94	Soprano pipistrelle (27) Common pipistrelle (55) Serotine (1) Unknown (3) Myotis sp. (4) Serotine/Nyctalus (4)
		14/09/17	19:28	Common pipistrelle recorded 35 minutes after sunset. Myotis sp. recorded 47 minutes after sunset.	Common pipistrelle Myotis sp. Unknown Serotine/Nyctalus Soprano pipistrelle	57	Common pipistrelle (16) Myotis sp. (7) Unknown (5) Serotine/Nyctalus (4) Soprano pipistrelle (25)
		15/09/17	19:26	Soprano pipistrelle recorded 19 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Myotis sp. recorded 43 minutes after sunset.	Unknown Soprano pipistrelle Common pipistrelle Serotine/Nyctalus Leisler's bat Myotis sp. Noctule	49	Unknown (6) Soprano pipistrelle (19) Common pipistrelle (6) Serotine/Nyctalus (5) Leisler's bat (1) Myotis sp. (9) Noctule (3)
		16/09/17	19:24	None recorded within the limit.	Unknown Myotis sp. Leisler's bat Noctule Soprano pipistrelle Common pipistrelle	12	Unknown (1) Myotis sp. (1) Leisler's bat (2) Noctule (5) Soprano pipistrelle (2) Common pipistrelle (1)
		17/09/17	19:21	Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset. Myotis sp. recorded 61 minutes after sunset	Common pipistrelle Noctule Soprano pipistrelle Pipistrellus sp. Serotine Unknown Serotine/Nyctalus Myotis sp.	45	Common pipistrelle (14) Noctule (11) Soprano pipistrelle (8) Pipistrellus sp. (1) Serotine (1) Unknown (1) Serotine/Nyctalus (3) Myotis sp. (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		18/09/17	19:19	Soprano pipistrelle recorded 8 minutes after sunset. Serotine/Nyctalus recorded 9 minutes after sunset. Noctule recorded 10 minutes after sunset. Common pipistrelle recorded 13 minutes after sunset. Myotis sp. recorded 65 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus Noctule Common pipistrelle Pipistrellus sp. Leisler's bat Myotis sp. Unknown	97	Soprano pipistrelle (20) Serotine/Nyctalus (6) Noctule (7) Common pipistrelle (21) Pipistrellus sp. (2) Leisler's bat (1) Myotis sp. (37) Unknown (3)
		19/09/17	19:17	Soprano pipistrelle recorded 6 minutes after sunset. Noctule recorded 8 minutes after sunset.	Soprano pipistrelle Noctule Pipistrellus sp. Serotine/Nyctalus Common pipistrelle Unknown Myotis sp. Leisler's bat	195	Soprano pipistrelle (49) Noctule (16) Pipistrellus sp. (1) Serotine/Nyctalus (12) Common pipistrelle (73) Unknown (9) Myotis sp. (34) Leisler's bat (1)
	October	11/10/17	18:28	None recorded within the limit.	Serotine/Nyctalus Common pipistrelle Noctule Pipistrellus sp. Unknown Myotis sp. Leisler's bat Lesser horseshoe bat	315	Serotine/Nyctalus (6) Common pipistrelle (239) Noctule (1) Pipistrellus sp. (15) Unknown (48) Myotis sp. (3) Leisler's bat (2) Lesser horseshoe bat (1)
		12/10/17	18:25	Myotis sp. recorded 35 minutes after sunset.	Noctule Myotis sp. Common pipistrelle Serotine/Nyctalus Pipistrellus sp. Unknown	169	Noctule (3) Myotis sp. (4) Common pipistrelle (97) Serotine/Nyctalus (8) Pipistrellus sp. (1) Unknown (56)
		13/10/17	18:23	Common pipistrelle recorded 40 minutes after sunset.	Common pipistrelle Unknown Noctule Serotine/Nyctalus	77	Common pipistrelle (17) Unknown (39) Noctule (8) Serotine/Nyctalus (7)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp. Leisler's bat Myotis sp. Soprano pipistrelle		Pipistrellus sp. (1) Leisler's bat (2) Myotis sp. (1) Soprano pipistrelle (2)
		14/10/17	18:21	None recorded within the limit.	Unknown Noctule Leisler's bat Serotine/Nyctalus Pipistrellus sp. Common pipistrelle Myotis sp.	103	Unknown (86) Noctule (9) Leisler's bat (3) Serotine/Nyctalus (2) Pipistrellus sp. (2) Common pipistrelle (9) Myotis sp. (5)
		15/10/17	18:19	None recorded within the limit.	Noctule Unknown Leisler's bat Common pipistrelle Myotis sp. Lesser horseshoe bat	83	Noctule (3) Unknown (76) Leisler's bat (2) Common pipistrelle (5) Myotis sp. (1) Lesser horseshoe bat (1)
		16/10/17	18:17	Myotis sp. 68 minutes after sunset.	Common pipistrelle Myotis sp. Unknown Soprano pipistrelle Serotine/Nyctalus Lesser horseshoe bat	36	Common pipistrelle (13) Myotis sp. (3) Unknown (18) Soprano pipistrelle (3) Serotine/Nyctalus (3) Lesser horseshoe bat (3)
		17/10/17	18:15	None recorded within the limit.	Unknown Noctule Serotine/Nyctalus Leisler's bat Myotis sp. Soprano pipistrelle	8	Unknown (1) Noctule (2) Serotine/Nyctalus (1) Leisler's bat (1) Myotis sp. (1) Soprano pipistrelle (2)
		18/10/17	18:13	None recorded within the limit.	Noctule Leisler's bat Unknown Myotis sp. Soprano pipistrelle	10	Noctule (3) Leisler's bat (2) Unknown (1) Myotis sp. (2) Soprano pipistrelle (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
Online 1.1a	April	12/4/17	20:03	None recorded within the limit.	Unknown Common pipistrelle	8	Common pipistrelle (6) Unknown (2)
		13/4/17	20:05	None recorded within the limit.	Unknown Myotis sp.	3	Unknown (1) Myotis sp. (2)
		14/4/17	20:06	None recorded within the limit.	Unknown Common pipistrelle	4	Unknown (1) Common pipistrelle (3)
		15/4/17	20:08	None recorded within the limit.	Brown long-eared bat Myotis sp.	2	Brown long-eared bar (1) Myotis sp. (1)
		16/4/17	20:09	None recorded within the limit.	Common pipistrelle Brown long-eared bat	4	Common pipistrelle (3) Brown long-eared bat (1)
		17/4/17	20:11	Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 36 minutes after sunset. Brown long-eared bat recorded 60 minutes after sunset.	Common pipistrelle Soprano pipistrelle Brown long-eared bat Unknown Serotine Myotis sp.	44	Common pipistrelle (26) Soprano pipistrelle (3) Brown long-eared bat (7) Unknown (3) Serotine (1) Myotis sp. (4)
		18/4/17	20:13	Common pipistrelle 32 minutes after sunset	Common pipistrelle Myotis sp. Unknown	8	Common pipistrelle (6) Myotis sp. (1) Unknown (1)
	May	01/05/17	20:34	None recorded within the limit.	Pipistrellus sp. Common pipistrelle Serotine/Nyctalus sp. Unknown	29	Pipistrellus sp. (13) Common pipistrelle (11) Serotine/Nyctalus sp. (3) Unknown (2)
		02/05/17	20:35	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Unknown Myotis sp.	20	Common pipistrelle (10) Pipistrellus sp. (2) Unknown (5) Myotis sp. (3)
		03/05/17	20:37	None recorded within the limit.	Common pipistrelle Pipistrellus sp.	2	Common pipistrelle (1) Pipistrellus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		04/05/17	20:39	None recorded within the limit.	Pipistrellus sp. Unknown Common pipistrelle Myotis sp.	18	Pipistrellus sp. (4) Unknown (5) Common pipistrelle (7) Myotis sp. (2)
		05/05/17	20:40	None recorded within the limit.	Myotis sp.	2	Myotis sp. (2)
		06/05/17	20:42	None recorded within the limit.	Noctule	2	Noctule (2)
		07/05/17	20:43	None recorded within the limit.	Pipistrellus sp. Common pipistrelle Serotine/Nyctalus sp. Unknown	5	Pipistrellus sp. (1) Common pipistrelle (1) Serotine/ Nyctalus sp. (1) Unknown (2)
	June	13/06/17	21:27	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Myotis sp.	22	Common pipistrelle (17) Pipistrellus sp. (2) Myotis sp. (3)
		14/06/17	21:28	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Unknown Soprano pipistrelle	58	Common pipistrelle (47) Pipistrellus sp. (2) Unknown (1) Soprano pipistrelle (8)
		15/06/17	21:28	Myotis sp. 59 minutes after sunset	Myotis sp. Pipistrellus sp. Brown long-eared bat Common pipistrelle	7	Myotis sp. (2) Pipistrellus sp. (3) Brown long-eared bat (1) Common pipistrelle (1)
		16/06/17	21:29	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Myotis sp. Unknown	52	Common pipistrelle (33) Pipistrellus sp. (4) Myotis sp. (14) Unknown (1)
		17/06/17	21:29	Common pipistrelle 35 minutes after sunset	Common pipistrelle Pipistrellus sp. Noctule Unknown Serotine Leisler's bat Soprano pipistrelle Myotis sp.	93	Common pipistrelle (6) Pipistrellus sp. (7) Noctule (2) Unknown (5) Serotine (1) Leisler's bat (1) Soprano pipistrelle (2) Myotis sp. (9)
		18/06/17	21:29	None recorded within the limit.	Common pipistrelle Pipistrellus sp.	126	Common pipistrelle (75) Pipistrellus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Noctule Serotine/Nyctalus sp. Serotine Myotis sp. Unknown Soprano pipistrelle		Leisler's bat (19) Noctule (4) Serotine/Nyctalus sp. (3) Serotine (2) Myotis sp. (16) Unknown (2) Soprano pipistrelle (1)
		19/06/17	21:30	None recorded within the limit.	Common pipistrelle Leisler's bat Myotis sp. Serotine Noctule Pipistrellus sp. Serotine/Nyctalus sp. Unknown Soprano pipistrelle	161	Common pipistrelle (100) Leisler's bat (23) Myotis sp. (7) Serotine (1) Noctule (1) Pipistrellus sp. (2) Serotine/Nyctalus sp. (1) Unknown (7) Soprano pipistrelle (19)
	July	12/07/17	21:23	Common pipistrelle 26 minutes after sunset	Common pipistrelle Noctule Myotis sp. Pipistrellus sp.	51	Common pipistrelle (36) Noctule (3) Myotis sp. (11) Pipistrellus sp. (1)
		13/07/2107	21:22	Common pipistrelle 32 minutes after sunset	Common pipistrelle Unknown Soprano pipistrelle Noctule Myotis sp.	25	Common pipistrelle (17) Unknown (2) Soprano pipistrelle (1) Noctule (3) Myotis sp. (2)
		14/07/17	21:21	None recorded within the limit.	Common pipistrelle Soprano pipistrelle	9	Common pipistrelle (8) Soprano pipistrelle (1)
		15/07/17	21:20	None recorded within the limit.	Common pipistrelle Noctule Leisler's bat Pipistrellus sp. Unknown	31	Common pipistrelle (12) Noctule (2) Leisler's bat (13) Pipistrellus sp. (1) Unknown (3)
		16/07/17	21:19	None recorded within the limit.	Common pipistrelle Soprano pipistrelle Unknown Noctule	42	Common pipistrelle (16) Soprano pipistrelle (11) Unknown (4) Noctule (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Myotis sp. Serotine		Leisler's bat (2) Myotis sp. (2) Serotine (1)
		17/07/17	21:18	Common pipistrelle 23 minutes after sunset	Common pipistrelle Leisler's bat Pipistrellus sp. Unknown Noctule Serotine Serotine/Nyctalus sp. Soprano pipistrelle Myotis sp.	101	Common pipistrelle (22) Leisler's bat (22) Pipistrellus sp. (3) Unknown (10) Noctule (5) Serotine (5) Serotine/Nyctalus sp. (6) Soprano pipistrelle (19) Myotis sp. (7)
		18/07/17	21:17	Common pipistrelle 27 minutes after sunset	Common pipistrelle Soprano pipistrelle Noctule Leisler's bat Pipistrellus sp. Serotine/Nyctalus sp. Serotine Unknown Myotis sp.	181	Common pipistrelle (57) Soprano pipistrelle (11) Noctule (1) Leisler's bat (29) Pipistrellus sp. (3) Serotine/Nyctalus sp. (20) Serotine (56) Unknown (2) Myotis sp. (2)
	August	08/08/17	20:46	Common pipistrelle 26 minutes after sunset. Myotis sp. 49 minutes after sunset	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Leisler's bat Unknown Serotine Myotis sp.	122	Common pipistrelle (86) Pipistrellus sp. (4) Soprano pipistrelle (3) Leisler's bat (5) Unknown (1) Serotine (1) Myotis sp. (22)
		09/08/17	20:44	Common pipistrelle 30 minutes after sunset	Common pipistrelle Pipistrellus sp. Unknown Leisler's bat Noctule Serotine/ Nyctalus sp. Serotine	30	Common pipistrelle (7) Pipistrellus sp. (10) Unknown (2) Leisler's bat (7) Noctule (1) Serotine/Nyctalus sp. (2) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		10/08/17	20:42	Common pipistrelle 27 minutes after sunset. Myotis 71 minutes after sunset	Common pipistrelle Unknown Pipistrellus sp. Serotine/Nyctalus sp. Myotis sp.	142	Common pipistrelle (97) Unknown (24) Pipistrellus sp. (9) Serotine/Nyctalus sp. (5) Myotis sp. (7)
		11/08/17	20:40	Common pipistrelle 26 minutes after sunset	Common pipistrelle Serotine/Nyctalus sp. Unknown Leisler's bat Noctule Soprano pipistrelle Serotine	24	Common pipistrelle (11) Serotine/Nyctalus sp. (2) Unknown (4) Leisler's bat (3) Noctule (2) Soprano pipistrelle (1) Serotine (1)
		12/08/17	20:38	Common pipistrelle 26 minutes after sunset. Myotis 55 minutes after sunset	Common pipistrelle Unknown Serotine/Nyctalus sp. Leisler's bat Myotis sp.	75	Common pipistrelle (60) Unknown (7) Serotine/Nyctalus sp. (5) Leisler's bat (1) Myotis (2)
		13/08/17	20:37	Common pipistrelle 25 minutes after sunset. Myotis sp. 56 minutes after sunset.	Common pipistrelle Unknown Soprano pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Serotine Myotis sp.	121	Common pipistrelle (62) Unknown (13) Soprano pipistrelle (17) Pipistrellus sp. (3) Serotine/Nyctalus sp. (7) Serotine (1) Myotis sp. (18)
		14/08/17	20:35	Noctule 24 minutes after sunset. Common pipistrelle 28 minutes after sunset	Noctule Common pipistrelle Unknown Leisler's bat Serotine Serotine/Nyctalus sp. Soprano pipistrelle Myotis sp.	59	Noctule (6) Common pipistrelle (13) Unknown (3) Leisler's bat (14) Serotine (2) Serotine/Nyctalus sp. (4) Soprano pipistrelle (1) Myotis sp. (16)
	October	03/10/17	18:45	Common pipistrelle 38 minutes after sunset	Unknown Common pipistrelle	8	Unknown (3) Common pipistrelle (6)
		05/10/17	18:41	None recorded within the limit.	Soprano pipistrelle	2	Soprano pipistrelle (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		06/10/17	18:38	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Unknown	19	Common pipistrelle (10) Pipistrellus sp. (8) Unknown (1)
		07/10/17	18:46	None recorded within the limit.	Unknown Common pipistrelle Soprano pipistrelle	11	Unknown (1) Common pipistrelle (9) Soprano pipistrelle (1)
		08/10/17	18:34	None recorded within the limit.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Unknown	18	Soprano pipistrelle (7) Common pipistrelle (1) Pipistrellus sp. (2) Serotine/Nyctalus sp. (1) Unknown (7)
		09/10/17	18:32	None recorded within the limit.	Common pipistrelle Serotine/Nyctalus sp. Pipistrellus sp. Soprano pipistrelle Unknown	11	Common pipistrelle (5) Serotine/Nyctalus sp. (1) Pipistrellus sp. (3) Soprano pipistrelle (1) Unknown (1)
		10/10/17	18:30	None recorded within the limit.	Serotine/Nyctalus sp.	1	Serotine/Nyctalus sp. (1)
Online 1.1b	June	13/06/17	21:27	Myotis sp. 58 minutes after sunset	Common pipistrelle Unknown Myotis sp. Noctule Soprano pipistrelle Leisler's bat Serotine Pipistrellus sp. Serotine/Nyctalus sp.	30	Common pipistrelle (7) Unknown (1) Myotis sp. (6) Noctule (1) Soprano pipistrelle (2) Leisler's bat (2) Serotine (5) Pipistrellus sp. (3) Serotine/Nyctalus sp. (3)
		14/06/17	21:28	Common pipistrelle 35 minutes after sunset. Myotis sp. 75 minutes after sunset	Common pipistrelle Pipistrellus sp. Leisler's bat Myotis sp. Serotine Serotine/Nyctalus sp.	35	Common pipistrelle (9) Pipistrellus sp. (2) Leisler's bat (10) Myotis sp. (7) Serotine (4) Serotine/Nyctalus sp. (3)
		15/06/17	21:28	Common pipistrelle 33 minutes after sunset.	Common pipistrelle Pipistrellus sp. Myotis sp.	9	Common pipistrelle (5) Pipistrellus sp. (2) Myotis sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 68 minutes after sunset			
		16/06/17	21:29	Common pipistrelle 27 minutes after sunset. Myotis sp. 68 minutes after sunset	Common pipistrelle Noctule Soprano pipistrelle Myotis sp. Leisler's bat Serotine Unknown	99	Common pipistrelle (25) Noctule (48) Soprano pipistrelle (3) Myotis sp. (13) Leisler's bat (2) Serotine (6) Unknown (2)
		17/06/17	21:29	Myotis sp. 61 minutes after sunset	Pipistrellus sp. Serotine Myotis sp. Common pipistrelle Leisler's bat Unknown Serotine/Nyctalus sp.	83	Pipistrellus sp. (1) Serotine (12) Myotis sp. (11) Common pipistrelle (22) Leisler's bat (33) Unknown (2) Serotine/Nyctalus sp. (2)
		18/06/17	21:29	None recorded within the limit.	Common pipistrelle Soprano pipistrelle Leisler's bat Pipistrellus sp. Myotis sp. Brown long-eared bat Serotine/Nyctalus sp. Serotine	79	Common pipistrelle (8) Soprano pipistrelle (1) Leisler's bat (57) Pipistrellus sp. (3) Myotis sp. (6) Brown long-eared bat (1) Serotine/Nyctalus sp. (2) Serotine (1)
		19/06/17	21:30	Pipistrellus sp. 34 minutes after sunset	Pipistrellus sp. Common pipistrelle Serotine Leisler's bat Myotis sp. Brown long-eared bat Serotine/Nyctalus sp. Noctule Unknown	76	Pipistrellus sp. (5) Common pipistrelle (8) Serotine (5) Leisler's bat (33) Myotis sp. (18) Brown long-eared bat (1) Serotine/Nyctalus sp. (4) Noctule (1) Unknown (1)
	July	12/07/17	21:23	Brown long-eared bat 60 minutes after sunset	Common pipistrelle Soprano pipistrelle Brown long-eared bat	41	Common pipistrelle (15) Soprano pipistrelle (4) Brown long-eared bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Pipistrellus sp. Serotine/Nyctalus sp. Unknown		Myotis sp. (15) Pipistrellus sp. (2) Serotine/Nyctalus sp. (1) Unknown (1)
		13/07/17	21:22	Common pipistrelle 28 minute after sunset	Common pipistrelle Leisler's bat Unknown Serotine Myotis sp.	26	Common pipistrelle (10) Leisler's bat (5) Unknown (1) Serotine (2) Myotis sp. (8)
		14/07/17	21:21	Brown long-eared bat 55 minute after sunset	Common pipistrelle Brown long-eared bat Pipistrellus sp. Myotis sp.	20	Common pipistrelle (8) Brown long-eared bat (4) Pipistrellus sp. (1) Myotis sp. (7)
		15/07/17	21:20	Noctule 2 minutes after sunset. Common pipistrelle 26 minutes after sunset	Noctule Common pipistrelle Leisler's bat Pipistrellus sp. Unknown Soprano pipistrelle Brown long-eared bat Myotis sp. Serotine/Nyctalus sp. Serotine	70	Noctule (7) Common pipistrelle (9) Leisler's bat (21) Pipistrellus sp. (1) Unknown (6) Soprano pipistrelle (3) Brown long-eared bat (1) Myotis sp. (1) Serotine/Nyctalus sp. (16) Serotine (5)
		16/07/17	21:19	Noctule 10 minutes after sunset. Common pipistrelle 29 minutes after sunset. Brown long-eared bat 52 minutes after sunset. Myotis sp. 60 minutes after sunset	Noctule Common pipistrelle Serotine Brown long-eared bat Leisler's bat Myotis sp. Soprano pipistrelle Unknown Serotine/Nyctalus sp.	89	Noctule (8) Common pipistrelle (10) Serotine (8) Brown long-eared bat (4) Leisler's bat (25) Myotis sp. (13) Soprano pipistrelle (1) Unknown (3) Serotine/Nyctalus sp. (17)
		17/07/17	21:18	Brown long-eared bat 70 minutes after sunset. Myotis sp. 74 minutes after sunset	Leisler's bat Serotine Common pipistrelle Soprano pipistrelle	146	Leisler's bat (76) Serotine (20) Common pipistrelle (18) Soprano pipistrelle (5)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Brown long-eared bat Myotis sp. Noctule Serotine/Nyctalus sp. Pipistrellus sp.		Brown long-eared bat (2) Myotis sp. (13) Noctule (3) Serotine/Nyctalus sp. (7) Pipistrellus sp. (2)
		18/07/17	21:17	Soprano pipistrelle 32 minutes after sunset	Soprano pipistrelle Common pipistrelle Leisler's bat Pipistrellus sp. Unknown Myotis sp. Serotine Serotine/Nyctalus sp.	93	Soprano pipistrelle (1) Common pipistrelle (27) Leisler's bat (25) Pipistrellus sp. (7) Unknown (5) Myotis sp. (4) Serotine (16) Serotine/Nyctalus sp. (8)
	August	08/08/17	20:46	Common pipistrelle 25 minutes after sunset.	Common pipistrelle Serotine Soprano pipistrelle Leisler's bat Lesser horseshoe bat Unknown Brown long-eared bat Serotine/Nyctalus sp.	35	Common pipistrelle (5) Serotine (4) Soprano pipistrelle (1) Leisler's bat (7) Lesser horseshoe bat (1) Unknown (14) Brown long-eared bat (2) Serotine/Nyctalus sp. (1)
		09/08/17	20:44	Common pipistrelle 21 minutes after sunset. Brown long-eared bat 37 minutes after sunset	Common pipistrelle Unknown Noctule Serotine/Nyctalus sp. Serotine Brown long-eared bat Soprano pipistrelle Pipistrellus sp. Leisler's bat Myotis sp. Lesser horseshoe bat	75	Common pipistrelle (22) Unknown (19) Noctule (1) Serotine/Nyctalus sp. (1) Serotine (6) Brown long-eared bat (1) Soprano pipistrelle (3) Pipistrellus sp. (2) Leisler's bat (10) Myotis sp. (9) Lesser horseshoe bat (1)
		10/08/17	20:42	Common pipistrelle 30 minutes after sunset	Common pipistrelle Serotine Soprano pipistrelle Serotine/Nyctalus sp.	34	Common pipistrelle (5) Serotine (3) Soprano pipistrelle (2) Serotine/Nyctalus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Unknown Pipistrellus sp. Leisler's bat		Unknown (5) Pipistrellus sp. (2) Leisler's bat (13)
		11/08/17	20:40	Common pipistrelle 17 minutes after sunset	Common pipistrelle Leisler's bat Myotis sp. Pipistrellus sp. Serotine/Nyctalus sp. Serotine Unknown Brown long-eared bat	47	Common pipistrelle (5) Leisler's bat (17) Myotis sp. (7) Pipistrellus sp. (3) Serotine/Nyctalus sp. (7) Serotine (2) Unknown (4) Brown long-eared bat (1)
		12/08/17	20:38	Common pipistrelle 38 minutes after sunset. Myotis sp. 47 minutes after sunset	Common pipistrelle Unknown Serotine/Nyctalus sp. Soprano pipistrelle Serotine Myotis sp. Noctule Brown long-eared bat Leisler's bat	49	Common pipistrelle (20) Unknown (13) Serotine/Nyctalus sp. (3) Soprano pipistrelle (3) Serotine (4) Myotis sp. (2) Noctule (2) Brown long-eared bat (1) Leisler's bat (1)
		14/08/17	20:35	Noctule 17 minutes after sunset. Common pipistrelle 21 minutes after sunset	Noctule Common pipistrelle Serotine Unknown Leisler's bat Myotis sp. Serotine/Nyctalus sp. Pipistrellus sp.	75	Noctule (14) Common pipistrelle (13) Serotine (6) Unknown (14) Leisler's bat (16) Myotis sp. (4) Serotine/Nyctalus sp. (6) Pipistrellus sp. (2)
	September	05/09/17	19:48	Common pipistrelle 34 minutes after sunset	Common pipistrelle Pipistrellus sp. Myotis sp. Soprano pipistrelle	6	Common pipistrelle (2) Pipistrellus sp. (2) Myotis sp. (1) Soprano pipistrelle (1)
		06/09/17	19:46	Myotis sp. 43 minutes after sunset	Myotis sp. Leisler's bat Common pipistrelle Unknown	9	Myotis sp. (2) Leisler's bat (1) Common pipistrelle (1) Unknown (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Brown long-eared bat		Brown long-eared bat (1)
		07/09/17	19:44	None recorded within the limit.	Leisler's bat Common pipistrelle Pipistrellus sp. Soprano pipistrelle	4	Leisler's bat (1) Common pipistrelle (1) Pipistrellus sp. (1) Soprano pipistrelle (1)
		08/09/17	19:42	None recorded within the limit.	Myotis sp. Unknown Brown long-eared bat Leisler's bat Serotine/Nyctalus sp. Barbastelle	11	Myotis sp. (3) Unknown (1) Brown long-eared bat (1) Leisler's bat (1) Serotine/Nyctalus sp. (4) Barbastelle (1)
		09/09/17	19:39	Common pipistrelle 32 after sunset Soprano pipistrelle 37 minutes after sunset	Common pipistrelle Leisler's bat Soprano pipistrelle Myotis sp. Unknown Serotine/Nyctalus sp. Brown long-eared bat	17	Common pipistrelle (2) Leisler's bat (3) Soprano pipistrelle (1) Myotis sp. (5) Unknown (2) Serotine/Nyctalus sp. (3) Brown long-eared bat (1)
		10/09/17	19:37	None recorded within the limit.	Soprano pipistrelle Serotine/Nyctalus sp.	2	Soprano pipistrelle (1) Serotine/Nyctalus sp. (1)
		11/09/17	19:35	None recorded within the limit.	Common pipistrelle Myotis sp.	5	Common pipistrelle (1) Myotis sp. (4)
	Oct	03/10/17	18:45	None recorded within the limit.	Serotine/Nyctalus sp. Unknown Myotis sp. Pipistrellus sp. Noctule	8	Serotine/Nyctalus sp. (2) Unknown (1) Myotis sp. (2) Pipistrellus sp. (1) Noctule (2)
		04/10/17	18:43	None recorded within the limit.	Serotine/Nyctalus sp. Common pipistrelle	2	Serotine/Nyctalus sp. (1) Common pipistrelle (1)
		05/10/17	18:41	Myotis sp. 38 minutes after sunset	Myotis sp. Leisler's bat Serotine/Nyctalus sp. Serotine Soprano pipistrelle Common pipistrelle	11	Myotis sp. (2) Leisler's bat (1) Serotine/Nyctalus sp. (1) Serotine (5) Soprano pipistrelle (1) Common pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		06/10/17	18:38	None recorded within the limit.	Serotine Leisler's bat Serotine/Nyctalus sp. Common pipistrelle Myotis sp.	27	Serotine (3) Leisler's bat (18) Serotine/Nyctalus sp. (1) Common pipistrelle (4) Myotis sp. (1)
		07/10/17	18:36	None recorded within the limit.	Common pipistrelle Unknown Leisler's bat Myotis sp. Serotine/Nyctalus sp. Pipistrellus sp.	7	Common pipistrelle (1) Unknown (1) Leisler's bat (1) Myotis sp. (1) Serotine/Nyctalus sp. (2) Pipistrellus sp. (1)
		08/10/17	18:34	None recorded within the limit.	Serotine Leisler's bat Serotine/Nyctalus sp. Noctule Unknown Pipistrellus sp. Common pipistrelle	72	Serotine (22) Leisler's bat (36) Serotine/Nyctalus sp. (4) Noctule (3) Unknown (5) Pipistrellus sp. (1) Common pipistrelle (1)
		09/10/17	18:32	None recorded within the limit.	Serotine Leisler's bat Unknown Noctule	25	Serotine (10) Leisler's bat (13) Unknown (1) Noctule (1)
Online 1.1c	April	11/04/17	20:01	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Serotine Serotine/Nyctalus sp. Unknown Myotis sp.	13	Common pipistrelle (3) Pipistrellus sp. (5) Serotine (1) Serotine/Nyctalus sp. (1) Unknown (2) Myotis sp. (1)
		12/04/17	20:03	None recorded within the limit.	Common pipistrelle Unknown Pipistrellus sp. Serotine/Nyctalus sp. Lesser horseshoe bat Myotis sp.	30	Common pipistrelle (13) Unknown (8) Pipistrellus sp. (4) Serotine/Nyctalus sp. (1) Lesser horseshoe bat (1) Myotis sp. (3)
		13/04/17	20:05	Soprano pipistrelle 33 minutes after sunset.	Soprano pipistrelle Pipistrellus sp.	16	Soprano pipistrelle (1) Pipistrellus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Pipistrellus sp. 38 minutes after sunset. Myotis sp. 59 minutes after sunset	Common pipistrelle Serotine Myotis sp. Unknown Serotine/Nyctalus sp.		Common pipistrelle (3) Serotine (1) Myotis sp. (5) Unknown (1) Serotine/Nyctalus sp. (1)
		14/04/17	20:06	Common pipistrelle 33 minutes after sunset	Common pipistrelle Serotine Serotine/Nyctalus sp. Leisler's bat Myotis sp. Unknown	30	Common pipistrelle (5) Serotine (1) Serotine/Nyctalus sp. (11) Leisler's bat (11) Myotis sp. (1) Unknown (1)
		15/04/17	20:08	Common pipistrelle 36 minutes after sunset	Common pipistrelle Pipistrellus sp. Unknown Myotis sp.	8	Common pipistrelle (2) Pipistrellus sp. (2) Unknown (3) Myotis sp. (1)
		16/04/17	20:09	Common pipistrelle 31 minutes after sunset	Unknown Common pipistrelle Serotine/Nyctalus sp. Serotine Leisler's bat Noctule Myotis sp. Pipistrellus sp. Soprano pipistrelle	98	Unknown (6) Common pipistrelle (6) Serotine/Nyctalus sp. (47) Serotine (13) Leisler's bat (12) Noctule (1) Myotis sp. (1) Pipistrellus sp. (11) Soprano pipistrelle (1)
		17/04/17	20:11	Common pipistrelle 30 minutes after sunset Pipistrellus sp. 30 minutes after sunset	Common pipistrelle Pipistrellus sp. Unknown Serotine/Nyctalus sp. Leisler's bat Noctule Myotis sp.	199	Common pipistrelle (4) Pipistrellus sp. (4) Unknown (21) Serotine/Nyctalus sp. (133) Leisler's bat (30) Noctule (1) Myotis sp. (4)
		18/04/17	20:13	Common pipistrelle 33 minutes after sunset Pipistrellus sp. 35 minutes after sunset	Common pipistrelle Serotine/Nyctalus sp. Serotine Soprano pipistrelles Pipistrellus sp.	63	Common pipistrelle (7) Serotine/Nyctalus sp. (18) Serotine (4) Soprano pipistrelles (2) Pipistrellus sp. (9)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Unknown Myotis sp.		Noctule (1) Unknown (20) Myotis sp. (2)
	May	16/05/17	20:57	Common pipistrelle 15 minutes after sunset. Myotis sp. 20 minutes after sunset Brown long-eared 46 minutes after sunset	Common pipistrelle Myotis sp. Unknown Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp. Serotine Soprano pipistrelle Brown long-eared bat Myotis sp.	144	Common pipistrelle (1) Myotis sp. (11) Unknown (1) Leisler's bat (90) Serotine/Nyctalus sp. (30) Pipistrellus sp. (2) Serotine (3) Soprano pipistrelle (2) Brown long-eared bat (4) Myotis sp. (11)
		17/05/17	20:58	Pipistrellus sp. 25 minutes after sunset. Myotis 31 minutes after sunset. Common pipistrelle 35 minutes after sunset	Pipistrellus sp. Serotine/Nyctalus sp. Myotis sp. Leisler's bat Common pipistrelle	23	Pipistrellus sp. (4) Serotine/Nyctalus sp. (1) Myotis sp. (7) Leisler's bat (5) Common pipistrelle (6)
		18/05/17	21:00	Common pipistrelle 19 minutes after sunset.	Common pipistrelle Pipistrellus sp. Serotine Leisler's bat Serotine/Nyctalus sp. Myotis sp.	34	Common pipistrelle (8) Pipistrellus sp. (10) Serotine (5) Leisler's bat (3) Serotine/Nyctalus sp. (1) Myotis sp. (7)
		19/05/17	21:01	Common pipistrelle 23 minutes after sunset. Leisler's bat 24 minutes after sunset	Common pipistrelle Leisler's bat Pipistrellus sp. Soprano pipistrelle Unknown Myotis sp.	26	Common pipistrelle (13) Leisler's bat (3) Pipistrellus sp. (5) Soprano pipistrelle (1) Unknown (1) Myotis sp. (3)
		20/05/17	21:03	Common pipistrelle 22 minutes after sunset. Myotis sp. 29 minutes after sunset	Common pipistrelle Myotis sp. Pipistrellus sp. Unknown Serotine	41	Common pipistrelle (6) Myotis sp. (11) Pipistrellus sp. (7) Unknown (2) Serotine (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp. Soprano pipistrelle Leisler's bat		Serotine/Nyctalus sp. (2) Soprano pipistrelle (3) Leisler's bat (8)
		21/05/17	21:04	Common pipistrelle 24 minutes after sunset. Myotis sp. 28 minutes after sunset	Unknown Common pipistrelle Myotis sp. Leisler's sp. Serotine Serotine/Nyctalus sp. Soprano pipistrelle Pipistrellus sp.	208	Unknown (2) Common pipistrelle (39) Myotis sp. (31) Leisler's sp. (91) Serotine (13) Serotine/Nyctalus sp. (24) Soprano pipistrelle (3) Pipistrellus sp. (5)
		22/05/17	21:05	Common pipistrelle 21 minutes after sunset. Myotis sp. 34 minutes after sunset.	Common pipistrelle Pipistrellus sp. Myotis sp. Leisler's bat Serotine Serotine/Nyctalus sp. Soprano pipistrelle Unknown Noctule	158	Common pipistrelle (35) Pipistrellus sp. (12) Myotis sp. (27) Leisler's bat (64) Serotine (3) Serotine/Nyctalus sp. (8) Soprano pipistrelle (5) Unknown (3) Noctule (1)
	June	13/06/17	21:27	Common pipistrelle 27 minutes after sunset. Soprano pipistrelle 27 minutes after sunset. Myotis 39 minutes after sunset	Common pipistrelle Soprano pipistrelle Unknown Pipistrellus sp. Myotis sp. Leisler's bat	134	Common pipistrelle (11) Soprano pipistrelle (1) Unknown (8) Pipistrellus sp. (5) Myotis sp. (104) Leisler's bat (5)
		14/06/17	21:28	Common pipistrelle 27 minutes after sunset Myotis sp. 47 minutes after sunset	Pipistrellus sp. Unknown Common pipistrelle Myotis sp. Leisler's bat Soprano pipistrelle	113	Pipistrellus sp. (12) Unknown (4) Common pipistrelle (6) Myotis sp. (86) Leisler's bat (3) Soprano pipistrelle (2)
		15/06/17	21:28	Common pipistrelle 25 minutes after sunset. Myotis 71 minutes after sunset	Common pipistrelle Pipistrellus sp. Unknown	339	Common pipistrelle (37) Pipistrellus sp. (128) Unknown (9)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Myotis sp.		Noctule (1) Myotis sp. (163)
		16/06/17	21:29	Common pipistrelle 25 minutes after sunset.	Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Myotis sp. Unknown	186	Common pipistrelle (4) Pipistrellus sp. (33) Serotine/Nyctalus sp. (7) Myotis sp. (138) Unknown (4)
		17/06/17	21:29	Common pipistrelle 34 minutes after sunset	Pipistrellus sp. Unknown Common pipistrelle Myotis sp.	131	Pipistrellus sp. (21) Unknown (3) Common pipistrelle (1) Myotis sp. (106)
		18/06/17	21:29	Pipistrellus sp. 30 minutes after sunset. Myotis 72 minutes after sunset	Pipistrellus sp. Unknown Common pipistrelle Leisler's bat Myotis sp. Noctule	91	Pipistrellus sp. (6) Unknown (4) Common pipistrelle (6) Leisler's bat (11) Myotis sp. (62) Noctule (2)
		19/06/17	21:30	Pipistrellus sp. 25 minutes after sunset. Common pipistrelle 32 minutes after sunset	Pipistrellus sp. Common pipistrelle Leisler's bat Myotis sp. Unknown Noctule	123	Pipistrellus sp. (15) Common pipistrelle (4) Leisler's bat (7) Myotis sp. (91) Unknown (5) Noctule (1)
	July	12/07/17	21:23	Pipistrellus sp. 29 minutes after sunset. Common pipistrelle 32 minutes after sunset	Pipistrellus sp. Unknown Common pipistrelle Serotine/Nyctalus sp. Serotine Noctule Leisler's bat	264	Pipistrellus sp. (16) Unknown (168) Common pipistrelle (18) Serotine/Nyctalus sp. (53) Serotine (3) Noctule (1) Leisler's bat (2)
		13/07/17	21:22	Serotine/Nyctalus sp. 13 minutes after sunset. Noctule 13 minutes after sunset. Pipistrellus sp. 21 minutes after sunset	Serotine/Nyctalus sp. Noctule Pipistrellus sp. Unknown Common pipistrelle Leisler's bat	267	Serotine/Nyctalus sp. (98) Noctule (2) Pipistrellus sp. (34) Unknown (130) Common pipistrelle (2) Leisler's bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		14/07/17	21:21	Common pipistrelle 22 minutes after sunset. Soprano pipistrelle 23 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown Serotine/Nyctalus sp.	272	Common pipistrelle (51) Soprano pipistrelle (2) Pipistrellus sp. (12) Unknown (167) Serotine/Nyctalus sp. (40)
		15/07/17	21:20	Pipistrellus sp. 21 minutes after sunset Common pipistrelle 23 minutes after sunset. Soprano pipistrelle 31 minutes after sunset	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Serotine Serotine/Nyctalus sp. Noctule Leisler's bat Unknown Myotis sp.	92	Pipistrellus sp. (8) Common pipistrelle (16) Soprano pipistrelle (2) Serotine (23) Serotine/Nyctalus sp. (5) Noctule (8) Leisler's bat (12) Unknown (17) Myotis sp. (1)
		16/07/17	21:29	Common pipistrelle 19 minutes after sunset. Serotine/Nyctalus sp. 21 minutes after sunset. Soprano pipistrelle 24 minutes after sunset. Myotis sp. 56 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Pipistrellus sp. Soprano pipistrelle Unknown Serotine Leisler's bat Noctule Myotis sp.	311	Common pipistrelle (39) Serotine/Nyctalus sp. (60) Pipistrellus sp. (59) Soprano pipistrelle (3) Unknown (117) Serotine (6) Leisler's bat (10) Noctule (15) Myotis sp. (2)
		17/07/17	21:18	Common pipistrelle 21 minutes after sunset.	Common pipistrelle Pipistrellus sp. Serotine Serotine/Nyctalus sp. Noctule Leisler's bat Soprano pipistrelle	191	Common pipistrelle (62) Pipistrellus sp. (14) Serotine (15) Serotine/Nyctalus sp. (27) Noctule (2) Leisler's bat (25) Soprano pipistrelle (4)
		18/07/17	21:17	Common pipistrelle 24 minutes after sunset. Soprano pipistrelle 34 minutes after sunset	Common pipistrelle Serotine/Nyctalus sp. Serotine Soprano pipistrelle Pipistrellus sp.	783	Common pipistrelle (383) Serotine/Nyctalus sp. (14) Serotine (68) Soprano pipistrelle (12) Pipistrellus sp. (214)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Unknown Leisler's bat Noctule Myotis sp.		Unknown (50) Leisler's bat (32) Noctule (3) Myotis sp. (7)
	August	10/08/17	20:42	Myotis sp. 57 minutes after sunset	Common pipistrelle Myotis sp. Pipistrellus sp. Unknown Soprano pipistrelle	45	Common pipistrelle (2) Myotis sp. (6) Pipistrellus sp. (3) Unknown (33) Soprano pipistrelle (1)
		11/08/17	20:42	Pipistrellus sp. 4 minutes after sunset. Myotis sp. 15 minutes after sunset	Pipistrellus sp. Unknown Myotis sp. Serotine/Nyctalus sp. Common pipistrelle	119	Pipistrellus sp. (63) Unknown (32) Myotis sp. (15) Serotine/Nyctalus sp. (5) Common pipistrelle (4)
		12/08/17	20:38	Pipistrellus sp. 23 minutes after sunset. Myotis sp. 30 minutes after sunset	Pipistrellus sp. Unknown Common pipistrelle Myotis sp. Lesser horseshoe bat	61	Pipistrellus sp. (18) Unknown (30) Common pipistrelle (6) Myotis sp. (6) Lesser horseshoe bat (1)
		13/08/17	20:37	Pipistrellus sp. 20 minutes after sunset. Common pipistrelle 24 minutes after sunset. Soprano pipistrelle 24 minutes after sunset. Myotis sp. 64 minutes after sunset.	Pipistrellus sp. Unknown Common pipistrelle Soprano pipistrelle Unknown Myotis sp.	132	Pipistrellus sp. (15) Unknown (43) Common pipistrelle (9) Soprano pipistrelle (2) Unknown (43) Myotis sp. (63)
		14/08/17	20:35	Pipistrellus sp. 13 minutes after sunset. Myotis sp. 20 minutes after sunset.	Pipistrellus sp. Unknown Myotis sp. Common pipistrelle Noctule	130	Pipistrellus sp. (35) Unknown (35) Myotis sp. (56) Common pipistrelle (3) Noctule (1)
	September	05/09/17	19:48	Pipistrellus sp. 22 minutes after sunset. Common pipistrelle 24 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp.	192	Pipistrellus sp. (26) Common pipistrelle (56) Soprano pipistrelle (11) Myotis sp. (61)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle 27 minutes after sunset. Myotis sp. 31 minutes after sunset.	Serotine/Nyctalus sp. Unknown		Serotine/Nyctalus sp. (28) Unknown (10)
		06/09/17	19:46	Myotis sp. 18 minute after sunset. Common pipistrelle 19 minutes after sunset.	Myotis sp. Common pipistrelle Pipistrellus sp. Soprano pipistrelle. Serotine/Nyctalus sp. Unknown Lesser horseshoe bat Noctule Barbastelle	173	Myotis sp. (103) Common pipistrelle (33) Pipistrellus sp. (19) Soprano pipistrelle (3) Serotine/Nyctalus sp. (21) Unknown (4) Lesser horseshoe bat (1) Noctule (1) Barbastelle (1)
		07/09/17	19:44	Myotis sp. 17 minutes after sunset. Common pipistrelle 19 minutes after sunset. Soprano pipistrelle 21 minutes after sunset.	Myotis sp. Common pipistrelle Pipistrellus sp. Soprano pipistrelle. Serotine/Nyctalus sp. Unknown Leisler's bat	185	Myotis sp. (93) Common pipistrelle (14) Pipistrellus sp. (45) Soprano pipistrelle (4) Serotine/Nyctalus sp. (17) Unknown (6) Leisler's bat (4)
		08/09/17	19:42	Myotis sp. 25 minutes after sunset. Common pipistrelle 30 minutes after sunset	Myotis sp. Common pipistrelle Unknown Serotine/Nyctalus sp.	92	Myotis sp. (64) Common pipistrelle (1) Unknown (4) Serotine/Nyctalus sp. (23)
		09/09/17	19:39	Common pipistrelle 25 minutes after sunset. Myotis sp. 28 minutes after sunset	Common pipistrelle Myotis sp. Serotine/Nyctalus sp.	71	Common pipistrelle (2) Myotis sp. (62) Serotine/Nyctalus sp. (7)
		10/09/17	19:37	Soprano pipistrelle 23 minutes after sunset. Myotis sp. 31 minutes after sunset	Soprano pipistrelle Myotis sp. Unknown Common pipistrelle	17	Soprano pipistrelle (1) Myotis sp. (13) Unknown (2) Common pipistrelle (1)
		11/09/17	19:35	Myotis sp. 25 minutes after sunset.	Myotis sp. Serotine/Nyctalus sp. Lesser horseshoe bat	69	Myotis sp. (59) Serotine/Nyctalus sp. (6) Lesser horseshoe bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Lesser horseshoe bat 31 minutes after sunset	Unknown Soprano pipistrelle		Unknown (2) Soprano pipistrelle (1)
	October	03/10/17	18:45	Common pipistrelle 27 minutes after sunset. Myotis sp. 49 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Serotine Pipistrellus sp. Unknown Myotis sp. Soprano pipistrelle Leisler's bat	164	Common pipistrelle (32) Serotine/Nyctalus sp. (8) Serotine (29) Pipistrellus sp. (19) Unknown (34) Myotis sp. (8) Soprano pipistrelle (7) Leisler's bat (27)
		04/10/17	18:43	Common pipistrelle 30 minutes after sunset. Myotis sp. 35 minutes after sunset Soprano pipistrelle 36 minutes after sunset	Serotine Common pipistrelle Myotis sp. Unknown Soprano pipistrelle Pipistrellus sp. Leisler's bat	1906	Serotine (11) Common pipistrelle (992) Myotis sp. (3) Unknown (658) Soprano pipistrelle (229) Pipistrellus sp. (7) Leisler's bat (6)
		05/10/17	18:41		Serotine/Nyctalus sp. Serotine Unknown Common pipistrelle Pipistrellus sp.	85	Serotine/Nyctalus sp. (19) Serotine (20) Unknown (15) Common pipistrelle (29) Pipistrellus sp. (2)
		06/10/17	18:38	Myotis sp. 55 minutes after sunset	Noctule Serotine/Nyctalus sp. Serotine Common pipistrelle Unknown Myotis sp. Leisler's bat Soprano pipistrelle Pipistrellus sp.	729	Noctule (1) Serotine/Nyctalus sp. (15) Serotine (103) Common pipistrelle (453) Unknown (64) Myotis sp. (7) Leisler's bat (34) Soprano pipistrelle (46) Pipistrellus sp. (6)
		07/10/17	18:36	Common pipistrelle 33 minutes after sunset	Serotine Common pipistrelle Serotine/Nyctalus sp. Unknown Pipistrellus sp.	374	Serotine (301) Common pipistrelle (18) Serotine/Nyctalus sp. (9) Unknown (41) Pipistrellus sp. (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Soprano pipistrelle		Leisler's bat (1) Soprano pipistrelle (2)
		08/10/17	18:34	Common pipistrelle 32 minutes after sunset. Myotis sp. 43 minutes after sunset	Serotine/Nyctalus sp. Common pipistrelle Serotine Unknown Myotis sp. Leisler's bat Soprano pipistrelle Pipistrellus sp.	143	Serotine/Nyctalus sp. (9) Common pipistrelle (20) Serotine (40) Unknown (22) Myotis sp. (25) Leisler's bat (19) Soprano pipistrelle (6) Pipistrellus sp. (2)
		09/10/17	18:32	Common pipistrelle 38 minutes after sunset. Myotis sp. 41 minutes after sunset.	Serotine Serotine/Nyctalus sp. Common pipistrelle Myotis sp. Unknown Leisler's bar Soprano pipistrelle Pipistrellus sp.	547	Serotine (94) Serotine/Nyctalus sp. (16) Common pipistrelle (310) Myotis sp. (27) Unknown (38) Leisler's bar (32) Soprano pipistrelle (29) Pipistrellus sp. (1)
		10/10/17	18:30	Common pipistrelle 27 minutes after sunset. Pipistrellus sp. 27 minutes after sunset. Myotis sp. 41 minutes after sunset.	Common pipistrelle Pipistrellus sp. Unknown Serotine Serotine/Nyctalus sp. Soprano pipistrelle Myotis sp. Leisler's bat Noctule	2340	Common pipistrelle (1815) Pipistrellus sp. (18) Unknown (303) Serotine (20) Serotine/Nyctalus sp. (4) Soprano pipistrelle (73) Myotis sp. (99) Leisler's bat (7) Noctule (1)
Online 1.2a	July	12/07/17	21:23	Myotis sp. 60 minutes after sunset	Serotine/Nyctalus sp. Unknown Serotine Soprano pipistrelle Myotis sp. Common pipistrelle Brown long-eared bat Leisler's bat	47	Serotine/Nyctalus sp. (15) Unknown (12) Serotine (1) Soprano pipistrelle (4) Myotis sp. (6) Common pipistrelle (7) Brown long-eared bat (1) Leisler's bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		13/07/17	21:22	Common pipistrelle 35 minutes after sunset. Myotis sp. 47 minutes after sunset	Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Serotine Soprano pipistrelle Unknown Leisler's bat Pipistrellus sp. Noctule	135	Common pipistrelle (94) Myotis sp. (7) Serotine/Nyctalus sp. (4) Serotine (2) Soprano pipistrelle (16) Unknown (8) Leisler's bat (2) Pipistrellus sp. (1) Noctule (1)
		14/07/17	21:21	Myotis sp. 58 minutes after sunset	Common pipistrelle Myotis sp. Soprano pipistrelle Unknown Pipistrellus sp. Serotine Lesser horseshoe bat Serotine/Nyctalus sp.	61	Common pipistrelle (40) Myotis sp. (7) Soprano pipistrelle (3) Unknown (5) Pipistrellus sp. (3) Serotine (1) Lesser horseshoe bat (1) Serotine/Nyctalus sp. (1)
		15/07/17	21:20	Common pipistrelle 32 minutes after sunset. Soprano pipistrelle 37 minutes after sunset. Myotis 51 minutes after sunset. Brown long-eared bat 76 minutes after sunset.	Unknown Common pipistrelle Soprano pipistrelle Myotis sp. Leisler's bat Noctule Brown long-eared bat Pipistrellus sp. Serotine Serotine/Nyctalus sp.	181	Unknown (8) Common pipistrelle (99) Soprano pipistrelle (12) Myotis sp. (5) Leisler's bat (13) Noctule (3) Brown long-eared bat (4) Pipistrellus sp. (23) Serotine (3) Serotine/Nyctalus sp. (11)
		16/07/17	21:19	Myotis sp. 51 minutes after sunset	Unknown Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Common pipistrelle Pipistrellus sp. Noctule Brown long-eared bat Serotine	177	Unknown (11) Soprano pipistrelle (8) Myotis sp. (6) Serotine/Nyctalus sp. (6) Common pipistrelle (139) Pipistrellus sp. (1) Noctule (2) Brown long-eared bat (3) Serotine (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		17/07/17	21:18	Soprano pipistrelle 36 minutes after sunset. Myotis sp. 59 minutes after sunset.	Soprano pipistrelle Noctule Serotine/Nyctalus sp. Unknown Pipistrellus sp. Myotis sp. Leisler's bat Common pipistrelle Brown long-eared bat Serotine	76	Soprano pipistrelle (3) Noctule (1) Serotine/Nyctalus sp. (37) Unknown (16) Pipistrellus sp. (2) Myotis sp. (2) Leisler's bat (6) Common pipistrelle (2) Brown long-eared bat (5) Serotine (2)
		18/07/17	21:17	Myotis sp. 61 minutes after sunset	Myotis sp. Common pipistrelle Serotine Pipistrellus sp. Serotine/Nyctalus sp. Noctule Unknown Brown long-eared bat	16	Myotis sp. (1) Common pipistrelle (1) Serotine (1) Pipistrellus sp. (1) Serotine/Nyctalus sp. (6) Noctule (1) Unknown (3) Brown long-eared bat (2)
	August	08/08/17	20:46	Soprano pipistrelle 28 minutes after sunset. Myotis sp. 59 minutes after sunset	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Myotis sp. Serotine Unknown Leisler's bat Noctule Serotine/Nyctalus sp.	68	Soprano pipistrelle (9) Pipistrellus sp. (2) Common pipistrelle (15) Myotis sp. (21) Serotine (4) Unknown (8) Leisler's bat (3) Noctule (2) Serotine/Nyctalus sp. (4)
		09/08/17	20:44	Pipistrellus sp. 34 minute after sunset. Myotis sp. 54 minutes after sunset	Noctule Pipistrellus sp. Common pipistrelle Myotis sp. Soprano pipistrelle Serotine Unknown Serotine/Nyctalus sp. Leisler's bat	64	Noctule (2) Pipistrellus sp. (3) Common pipistrelle (15) Myotis sp. (18) Soprano pipistrelle (12) Serotine (3) Unknown (3) Serotine/Nyctalus sp. (2) Leisler's bat (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Brown long-eared bat		Brown long-eared bat (3)
		10/08/17	20:42	Soprano pipistrelle 24 minutes after sunset. Myotis sp. 59 minutes after sunset.	Soprano pipistrelle Noctule Unknown Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Leisler's bat Brown long-eared bat Lesser horseshoe bat	63	Soprano pipistrelle (23) Noctule (1) Unknown (2) Common pipistrelle (13) Myotis sp. (11) Serotine/Nyctalus sp. (3) Leisler's bat (3) Brown long-eared bat (6) Lesser horseshoe bat (1)
		11/08/17	20:40	Soprano pipistrelle 25 minutes after sunset. Common pipistrelle 28 minutes after sunset. Myotis sp. 35 minutes after sunset	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Myotis sp. Leisler's bat Serotine Serotine/Nyctalus sp. Unknown Brown long-eared bat Noctule Lesser horseshoe bat	249	Soprano pipistrelle (77) Common pipistrelle (97) Pipistrellus sp. (5) Myotis sp. (27) Leisler's bat (5) Serotine (12) Serotine/Nyctalus sp. (10) Unknown (10) Brown long-eared bat (3) Noctule (2) Lesser horseshoe bat (1)
		12/08/17	20:38	Soprano pipistrelle 24 minutes after sunset. Myotis sp. 51 minutes after sunset.	Soprano pipistrelle Noctule Myotis sp. Common pipistrelle Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Serotine Unknown	63	Soprano pipistrelle (11) Noctule (2) Myotis sp. (20) Common pipistrelle (6) Leisler's bat (6) Serotine/Nyctalus sp. (6) Brown long-eared bat (10) Serotine (1) Unknown (1)
		13/08/17	20:37	Soprano pipistrelle 33 minutes after sunset. Myotis sp. 58 minutes after sunset.	Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Brown long-eared bat Leisler's bat Unknown	15	Soprano pipistrelle (5) Myotis sp. (5) Serotine/Nyctalus sp. (1) Brown long-eared bat (2) Leisler's bat (1) Unknown (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		14/08/17	20:35	Soprano pipistrelle 21 minutes after sunset. Myotis sp. 50 minutes after sunset.	Noctule Soprano pipistrelle Unknown Common pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Pipistrellus sp. Serotine	85	Noctule (4) Soprano pipistrelle (14) Unknown (7) Common pipistrelle (15) Myotis sp. (13) Leisler's bat (4) Serotine/Nyctalus sp. (15) Brown long-eared bat (3) Pipistrellus sp. (2) Serotine (8)
	September	05/09/17	19:48	Soprano pipistrelle 29 minutes after sunset. Common pipistrelle 34 minutes after sunset. Myotis sp. 56 minutes after sunset. Brown long-eared bat 62 minutes after sunset	Soprano pipistrelle Common pipistrelle Unknown Leisler's bat Myotis sp. Serotine Brown long-eared bat Barbastelle Serotine/Nyctalus sp.	155	Soprano pipistrelle (11) Common pipistrelle (9) Unknown (3) Leisler's bat (4) Myotis sp. (32) Serotine (1) Brown long-eared bat (9) Barbastelle (29) Serotine/Nyctalus sp. (57)
		06/09/17	19:46	Common pipistrelle 35 minutes after sunset. Soprano pipistrelle 38 minutes after sunset. Myotis sp. 43 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Unknown Leisler's bat Brown long-eared bat Noctule Barbastelle Greater horseshoe bat	152	Pipistrellus sp. (5) Common pipistrelle (37) Soprano pipistrelle (16) Myotis sp. (19) Serotine/Nyctalus sp. (40) Unknown (6) Leisler's bat (6) Brown long-eared bat (5) Noctule (3) Barbastelle (14) Greater horseshoe bat (1)
		07/09/17	19:44	Soprano pipistrelle 25 minutes after sunset. Common pipistrelle 35 minutes after sunset. Myotis sp. 49 minutes after sunset.	Noctule Soprano pipistrelle Common pipistrelle Unknown Pipistrellus sp. Myotis sp.	306	Noctule (3) Soprano pipistrelle (47) Common pipistrelle (71) Unknown (1) Pipistrellus sp. (3) Myotis sp. (35)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp. Serotine Leisler's bat Barbastelle Brown long-eared bat		Serotine/Nyctalus sp. (84) Serotine (4) Leisler's bat (12) Barbastelle (37) Brown long-eared bat (9)
		08/09/17	19:42	Soprano pipistrelle 22 minutes after sunset. Common pipistrelle 29 minutes after sunset. Myotis sp. 45 minutes after sunset. Brown long-eared bat 71 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Myotis sp. Brown long-eared bat Barbastelle Serotine/Nyctalus sp. Leisler's bat Noctule	114	Soprano pipistrelle (5) Pipistrellus sp. (4) Common pipistrelle (12) Myotis sp. (26) Brown long-eared bat (7) Barbastelle (5) Serotine/Nyctalus sp. (50) Leisler's bat (4) Noctule (1)
		09/09/17	19:39	Soprano pipistrelle 38 minutes after sunset. Myotis sp. 50 minutes after sunset. Brown long-eared 62 minutes after sunset. Barbastelle 63 minutes after sunset.	Soprano pipistrelle Myotis sp. Unknown Brown long-eared bat Barbastelle Serotine/Nyctalus sp. Leisler's bat Common pipistrelle	51	Soprano pipistrelle (12) Myotis sp. (11) Unknown (2) Brown long-eared bat (8) Barbastelle (2) Serotine/Nyctalus sp. (12) Leisler's bat (1) Common pipistrelle (3)
		10/09/17	19:37	Myotis sp. 55 minutes after sunset	Pipistrellus sp. Common pipistrelle Myotis sp. Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Unknown Serotine Brown long-eared bat	77	Pipistrellus sp. (1) Common pipistrelle (9) Myotis sp. (23) Soprano pipistrelle (9) Serotine/Nyctalus sp. (29) Leisler's bat (1) Unknown (2) Serotine (1) Brown long-eared bat (2)
		11/09/17	19:35	Soprano pipistrelle 31 minutes after sunset. Myotis sp. 49 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Myotis sp. Leisler's bat Serotine/Nyctalus sp.	164	Soprano pipistrelle (45) Pipistrellus sp. (7) Myotis sp. (24) Leisler's bat (7) Serotine/Nyctalus sp. (53)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Barbastelle 65 minutes after sunset.	Barbastelle Serotine Common pipistrelle Brown long-eared Unknown Noctule Lesser horseshoe bat		Barbastelle (6) Serotine (1) Common pipistrelle (1) Brown long-eared (16) Unknown (2) Noctule (1) Lesser horseshoe bat (1)
	October	03/10/17	18:45	Soprano pipistrelle 27 minutes after sunset. Common pipistrelle 31 minutes after sunset. Myotis sp. 48 minutes after sunset.	Soprano pipistrelle Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Barbastelle Unknown Brown long-eared bat	473	Soprano pipistrelle (102) Common pipistrelle (299) Myotis sp. (42) Serotine/Nyctalus sp. (14) Barbastelle (6) Unknown (2) Brown long-eared bat (8)
		04/10/17	18:43	Common pipistrelle 24 minutes after sunset. Soprano pipistrelle 27 minutes after sunset. Myotis sp. 52 minutes after sunset	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Myotis sp. Serotine Serotine/Nyctalus sp. Leisler's bat Unknown Barbastelle Brown long-eared bat	583	Common pipistrelle (243) Soprano pipistrelle (82) Pipistrellus sp. (2) Myotis sp. (33) Serotine (2) Serotine/Nyctalus sp. (146) Leisler's bat (1) Unknown (1) Barbastelle (62) Brown long-eared bat (10)
		05/10/17	18:41	Common pipistrelle 30 minutes after sunset. Soprano pipistrelle 30 minutes after sunset. Myotis sp. 38 minutes after sunset	Common pipistrelle Soprano pipistrelle Myotis sp. Serotine Serotine/Nyctalus sp. Barbastelle Unknown	119	Common pipistrelle (31) Soprano pipistrelle (9) Myotis sp. (56) Serotine (1) Serotine/Nyctalus sp. (17) Barbastelle (3) Unknown (2)
		06/10/17	18:38	Common pipistrelle 21 minutes after sunset. Soprano pipistrelle 26 minutes after sunset.	Common pipistrelle Soprano pipistrelle Unknown Myotis sp.	395	Common pipistrelle (247) Soprano pipistrelle (30) Unknown (2) Myotis sp. (41)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 61 minutes after sunset	Serotine/Nyctalus sp. Pipistrellus sp. Lesser horseshoe bat Barbastelle Brown long-eared bat		Serotine/Nyctalus sp. (62) Pipistrellus sp. (3) Lesser horseshoe bat (1) Barbastelle (8) Brown long-eared bat (1)
		07/10/17	18:36	Soprano pipistrelle 27 minutes after sunset. Myotis sp. 49 minutes after sunset. Barbastelle 52 minutes after sunset. Brown long-eared bat 60 minutes after sunset	Soprano pipistrelle Myotis sp. Barbastelle Serotine/Nyctalus sp. Common pipistrelle Brown long-eared bat Serotine Unknown	263	Soprano pipistrelle (68) Myotis sp. (105) Barbastelle (5) Serotine/Nyctalus sp. (61) Common pipistrelle (20) Brown long-eared bat (1) Serotine (1) Unknown (2)
		08/10/17	18:34	Soprano pipistrelle 30 minutes after sunset. Common pipistrelle 36 minutes after sunset. Myotis sp. 37 minutes after sunset.	Soprano pipistrelle Common pipistrelle Myotis sp. Pipistrellus sp. Serotine Serotine/Nyctalus Leisler's bat Brown long-eared bat	87	Soprano pipistrelle (20) Common pipistrelle (26) Myotis sp. (17) Pipistrellus sp. (6) Serotine (2) Serotine/Nyctalus (11) Leisler's bat (3) Brown long-eared bat (2)
		09/10/17	18:32	Pipistrellus sp. 28 minutes after sunset. Myotis sp. 54 minutes after sunset	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Serotine Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Barbastelle	259	Pipistrellus sp. (3) Common pipistrelle (95) Soprano pipistrelle (65) Myotis sp. (29) Serotine (2) Leisler's bat (2) Serotine/Nyctalus sp. (58) Brown long-eared bat (2) Barbastelle (3)
		10/10/17	18:30	Common pipistrelle 32 minutes after sunset. Soprano pipistrelle 35 minutes after sunset.	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Myotis sp. Brown long-eared bat	367	Pipistrellus sp. (10) Common pipistrelle (33) Soprano pipistrelle (17) Myotis sp. (27) Brown long-eared bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 51 minutes after sunset. Brown long-eared bat 57 minutes after sunset	Serotine Serotine/Nyctalus sp. Unknown Barbastelle		Serotine (7) Serotine/Nyctalus sp. (215) Unknown (3) Barbastelle (53)
Online 1.2b	June	13/06/17	21:27	None recorded within the limit.	Common pipistrelle Soprano pipistrelle Serotine Pipistrellus sp. Lesser horseshoe bat Brown long-eared bat Myotis sp. Noctule	33	Common pipistrelle (13) Soprano pipistrelle (4) Serotine (4) Pipistrellus sp. (2) Lesser horseshoe bat (1) Brown long-eared bat (2) Myotis sp. (1) Noctule (6)
		14/06/17	21:28	None recorded within the limit.	Pipistrellus sp. Soprano pipistrelle Common pipistrelle Serotine Leisler's bat Unknown Brown long-eared bat Myotis sp. Noctule	32	Pipistrellus sp. (2) Soprano pipistrelle (4) Common pipistrelle (16) Serotine (1) Leisler's bat (1) Unknown (1) Brown long-eared bat (1) Myotis sp. (3) Noctule (3)
		15/06/17	21:38	None recorded within the limit.	Noctule Common pipistrelle Brown long-eared bat Myotis sp.	7	Noctule (1) Common pipistrelle (1) Brown long-eared bat (4) Myotis sp. (1)
		16/06/17	21:29	None recorded within the limit.	Common pipistrelle Unknown Pipistrellus sp. Serotine Noctule Brown long-eared bat Leisler's bat Serotine/Nyctalus sp.	19	Common pipistrelle (8) Unknown (1) Pipistrellus sp. (1) Serotine (1) Noctule (3) Brown long-eared bat (3) Leisler's bat (1) Serotine/Nyctalus sp. (1)
		17/06/17	21:29	None recorded within the limit.	Common pipistrelle Serotine Leisler's bat	20	Common pipistrelle (7) Serotine (2) Leisler's bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Pipistrellus sp. Soprano pipistrelle Noctule		Myotis sp. (1) Pipistrellus sp. (1) Soprano pipistrelle (6) Noctule (1)
		18/06/2016	21:29	None recorded within the limit.	Pipistrellus sp. Soprano pipistrelle Common pipistrelle Myotis sp. Serotine Unknown Noctule Leisler's bat Brown long-eared bat Serotine/Nyctalus sp.	36	Pipistrellus sp. (3) Soprano pipistrelle (2) Common pipistrelle (12) Myotis sp. (2) Serotine (5) Unknown (1) Noctule (1) Leisler's bat (8) Brown long-eared bat (1) Serotine/Nyctalus sp. (1)
		19/06/17	21:30	None recorded within the limit.	Common pipistrelle Soprano pipistrelle Unknown Myotis sp. Leisler's bat Brown long-eared bat Pipistrellus sp. Noctule	35	Common pipistrelle (14) Soprano pipistrelle (2) Unknown (1) Myotis sp. (2) Leisler's bat (9) Brown long-eared bat (2) Pipistrellus sp. (2) Noctule (3)
	July	12/07/17	21:23	None recorded within the limit.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Serotine Brown long-eared bat Leisler's bat Myotis sp. Pipistrellus sp.	18	Soprano pipistrelle (1) Common pipistrelle (2) Serotine/Nyctalus sp. (4) Serotine (4) Brown long-eared bat (3) Leisler's bat (1) Myotis sp. (2) Pipistrellus sp. (1)
		13/07/17	21:22	None recorded within the limit.	Unknown Common pipistrelle Leisler's bat Serotine Pipistrellus sp. Brown long-eared bat	31	Unknown (3) Common pipistrelle (10) Leisler's bat (1) Serotine (1) Pipistrellus sp. (7) Brown long-eared bat (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Greater horseshoe bat Lesser horseshoe bat Myotis sp. Serotine/Nyctalus sp.		Greater horseshoe bat (1) Lesser horseshoe bat (1) Myotis sp. (1) Serotine/Nyctalus sp. (2)
		14/07/17	21:21	None recorded within the limit.	Pipistrellus sp. Serotine Myotis sp. Common pipistrelle Brown long-eared bat Soprano pipistrelle	11	Pipistrellus sp. (4) Serotine (1) Myotis sp. (1) Common pipistrelle (3) Brown long-eared bat (1) Soprano pipistrelle (1)
		15/07/17	21:20	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Leisler's bat Unknown Myotis sp.	25	Common pipistrelle (12) Pipistrellus sp. (2) Soprano pipistrelle (2) Leisler's bat (3) Unknown (5) Myotis sp. (1)
		16/07/17	21:19	None recorded within the limit.	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Noctule Serotine/Nyctalus sp. Unknown Myotis sp. Brown long-eared bat Leisler's bat	71	Soprano pipistrelle (2) Pipistrellus sp. (4) Common pipistrelle (52) Noctule (1) Serotine/Nyctalus sp. (2) Unknown (1) Myotis sp. (5) Brown long-eared bat (2) Leisler's bat (2)
		17/07/17	21:18	None recorded within the limit.	Common pipistrelle Leisler's bat Soprano pipistrelle Serotine Myotis sp. Pipistrellus sp. Brown long-eared bat Noctule	40	Common pipistrelle (20) Leisler's bat (3) Soprano pipistrelle (1) Serotine (5) Myotis sp. (5) Pipistrellus sp. (2) Brown long-eared bat (3) Noctule (1)
		18/07/17	21:17	None recorded within the limit.	Leisler's bat Common pipistrelle Serotine	20	Leisler's bat (6) Common pipistrelle (5) Serotine (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Brown long-eared bat Unknown		Myotis sp. (3) Brown long-eared bat (1) Unknown (1)
	August	08/08/17	20:46	None recorded within the limit.	Leisler's bat Common pipistrelle Serotine/Nyctalus sp. Serotine Soprano pipistrelle Brown long-eared bat	14	Leisler's bat (3) Common pipistrelle (3) Serotine/Nyctalus sp. (3) Serotine (1) Soprano pipistrelle (1) Brown long-eared bat (3)
		09/08/17	20:44	None recorded within the limit.	Common pipistrelle Leisler's bat Serotine Pipistrellus sp. Serotine/Nyctalus sp. Noctule Myotis sp. Brown long-eared bat Unknown Barbastelle Lesser horseshoe bat	63	Common pipistrelle (36) Leisler's bat (3) Serotine (7) Pipistrellus sp. (1) Serotine/Nyctalus sp. (1) Noctule (1) Myotis sp. (2) Brown long-eared bat (2) Unknown (1) Barbastelle (2) Lesser horseshoe bat (7)
		10/08/17	20:42	None recorded within the limit.	Noctule Common pipistrelle Leisler's bat Myotis sp. Serotine/Nyctalus sp. Soprano pipistrelle Unknown Brown long-eared bat	13	Noctule (1) Common pipistrelle (2) Leisler's bat (3) Myotis sp. (1) Serotine/Nyctalus sp. (2) Soprano pipistrelle (1) Unknown (1) Brown long-eared bat (2)
		11/08/17	20:40	Common pipistrelle 31 minutes after sunset	Common pipistrelle Leisler's bat Serotine/Nyctalus sp. Myotis sp. Serotine Unknown Brown long-eared bat Soprano pipistrelle	36	Common pipistrelle (7) Leisler's bat (3) Serotine/Nyctalus sp. (11) Myotis sp. (5) Serotine (4) Unknown (2) Brown long-eared bat (3) Soprano pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		12/08/17	20:38	None recorded within the limit.	Common pipistrelle Noctule Serotine/Nyctalus sp. Pipistrellus sp. Serotine Leisler's bat Brown long-eared bat	23	Common pipistrelle (4) Noctule (1) Serotine/Nyctalus sp. (5) Pipistrellus sp. (1) Serotine (5) Leisler's bat (5) Brown long-eared bat (2)
		13/08/17	20:37	None recorded within the limit.	Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp. Noctule Soprano pipistrelle Common pipistrelle Myotis sp. Brown long-eared bat	71	Leisler's bat (42) Serotine/Nyctalus sp. (9) Pipistrellus sp. (1) Noctule (3) Soprano pipistrelle (2) Common pipistrelle (2) Myotis sp. (9) Brown long-eared bat (1) Unknown (2)
		14/08/17	20:35	Common pipistrelle 37 minutes after sunset	Noctule Common pipistrelle Leisler's bat Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp. Unknown Serotine Myotis sp.	58	Noctule (5) Common pipistrelle (18) Leisler's bat (16) Pipistrellus sp. (5) Soprano pipistrelle (1) Serotine/Nyctalus sp. (5) Unknown (3) Serotine (3) Myotis sp. (2)
	September	05/09/17	19:48	None recorded within the limit.	Unknown Myotis sp. Brown long-eared bat Serotine/Nyctalus sp. Serotine	9	Unknown (1) Myotis sp. (5) Brown long-eared bat (1) Serotine/Nyctalus sp. (1) Serotine (1)
		06/09/17	19:46	Pipistrellus sp. 34 minutes after sunset. Brown long-eared bat 70 minutes after sunset	Pipistrellus sp. Brown long-eared bat Serotine Myotis sp. Leisler's bat Soprano pipistrelle	22	Pipistrellus sp. (2) Brown long-eared bat (2) Serotine (4) Myotis sp. (8) Leisler's bat (2) Soprano pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Serotine/Nyctalus sp.		Common pipistrelle (1) Serotine/Nyctalus sp. (2)
		07/09/17	19:44	None recorded within the limit.	Serotine Pipistrellus sp. Leisler's bat Noctule	27	Serotine (4) Pipistrellus sp. (1) Leisler's bat (3) Noctule (19)
		08/09/17	19:42	None recorded within the limit.	Leisler's bat Brown long-eared bat Serotine/Nyctalus sp. Myotis sp. Serotine	6	Leisler's bat (1) Brown long-eared bat (2) Serotine/Nyctalus sp. (1) Myotis sp. (1) Serotine (1)
		09/09/17	19:39	None recorded within the limit.	Brown long-eared bat Serotine Myotis sp.	8	Brown long-eared bat (1) Serotine (2) Myotis sp. (5)
		10/09/17	19:37	None recorded within the limit.	Leisler's bat Serotine/Nyctalus sp.	2	Leisler's bat (1) Serotine/Nyctalus sp. (1)
		11/09/17	19:35	None recorded within the limit.	Serotine Leisler's bat Myotis sp. Serotine/Nyctalus sp.	9	Serotine (1) Leisler's bat (3) Myotis sp. (3) Serotine/Nyctalus sp. (2)
	October	03/10/17	18:45	None recorded within the limit.	Leisler's bat Serotine/Nyctalus sp.	4	Leisler's bat (2) Serotine/Nyctalus sp. (2)
		04/10/17	18:43	None recorded within the limit.	Unknown Myotis sp. Brown long-eared bat Soprano pipistrelle	4	Unknown (1) Myotis sp. (1) Brown long-eared bat (1) Soprano pipistrelle (1)
		05/10/17	18:41	None recorded within the limit.	Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Lesser horseshoe bat	5	Common pipistrelle (1) Serotine/Nyctalus sp. (2) Myotis sp. (1) Lesser horseshoe bat (1)
		06/10/17	18:38	Unknown bat 19 minutes before sunset. Myotis sp. 59 minutes after sunset	Unknown Myotis sp. Common pipistrelle Pipistrellus sp. Brown long-eared bat	14	Unknown (1) Myotis sp. (3) Common pipistrelle (5) Pipistrellus sp. (1) Brown long-eared bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat		Leisler's bat (2)
		07/10/17	18:36	None recorded within the limit.	Pipistrellus sp. Myotis sp. Serotine/Nyctalus sp. Serotine Common pipistrelle	8	Pipistrellus sp. (1) Myotis sp. (1) Serotine/Nyctalus sp. (3) Serotine (1) Common pipistrelle (2)
		08/10/17	18:34	None recorded within the limit.	Serotine Pipistrellus sp. Leisler's bat Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Unknown	21	Serotine (1) Pipistrellus sp. (4) Leisler's bat (4) Common pipistrelle (2) Serotine/Nyctalus sp. (4) Myotis sp. (3) Unknown (3)
		09/10/17	18:32	None recorded within the limit.	Myotis sp. Leisler's bat Common pipistrelle Unknown Pipistrellus sp.	12	Myotis sp. (4) Leisler's bat (1) Common pipistrelle (5) Unknown (1) Pipistrellus sp. (1)
		10/10/17	18:30	Pipistrellus sp. 37 minutes after sunset	Pipistrellus sp. Serotine	2	Pipistrellus sp. (1) Serotine (1)
Online 1.2c	April	11/04/17	20:01	Pipistrellus sp. 31 minutes after sunset	Pipistrellus sp. Common pipistrelle Soprano pipistrelle	12	Pipistrellus sp. (2) Common pipistrelle (7) Soprano pipistrelle (3)
		12/04/17	20:03	Barbastelle 60 minutes after sunset	Soprano pipistrelle Barbastelle Common pipistrelle Serotine Brown long-eared bat Pipistrellus sp. Myotis sp.	30	Soprano pipistrelle (10) Barbastelle (1) Common pipistrelle (12) Serotine (1) Brown long-eared bat (2) Pipistrellus sp. (3) Myotis sp. (1)
		13/04/17	20:05	Soprano pipistrelle 22 minutes after sunset. Brown long-eared bat 67 minutes after sunset	Soprano pipistrelle Common pipistrelle Unknown Brown long-eared bat Pipistrellus sp.	5	Soprano pipistrelle (1) Common pipistrelle (1) Unknown (1) Brown long-eared bat (1) Pipistrellus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		14/04/17	20:06	Soprano pipistrelle 13 minutes after sunset	Soprano pipistrelle Pipistrellus sp. Serotine Unknown Common pipistrelle Leisler's bat Myotis sp.	53	Soprano pipistrelle (4) Pipistrellus sp. (6) Serotine (22) Unknown (6) Common pipistrelle (12) Leisler's bat (2) Myotis sp. (1)
		15/04/17	20:08	Pipistrellus sp. 35 minutes after sunset	Pipistrellus sp. Common pipistrelle Soprano pipistrelle Brown long-eared bat Unknown	10	Pipistrellus sp. (1) Common pipistrelle (2) Soprano pipistrelle (4) Brown long-eared bat (1) Unknown (2)
		16/04/17	20:09	Soprano pipistrelle 11 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine Myotis sp. Pipistrellus sp. Unknown Serotine/Nyctalus sp. Brown long-eared bat	47	Soprano pipistrelle (8) Common pipistrelle (14) Serotine (6) Myotis sp. (1) Pipistrellus sp. (9) Unknown (7) Serotine/Nyctalus sp. (1) Brown long-eared bat (1)
		17/04/17	20:11	Soprano pipistrelle	Soprano pipistrelle Leisler's bat Serotine/Nyctalus sp. Common pipistrelle Serotine Pipistrellus sp. Unknown Brown long-eared bat Myotis sp.	53	Soprano pipistrelle (2) Leisler's bat (6) Serotine/Nyctalus sp. (3) Common pipistrelle (25) Serotine (11) Pipistrellus sp. (1) Unknown (2) Brown long-eared bat (2) Myotis sp. (1)
		18/04/17	20:13	Soprano pipistrelle 21 minutes after sunset	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Serotine Serotine/Nyctalus sp. Unknown	21	Soprano pipistrelle (5) Common pipistrelle (10) Pipistrellus sp. (2) Serotine (2) Serotine/Nyctalus sp. (1) Unknown (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	May	16/05/17	20:57	Common pipistrelle 23 minutes after sunset	Common pipistrelle Leisler's bat Pipistrellus sp. Serotine	7	Common pipistrelle (2) Leisler's bat (2) Pipistrellus sp. (1) Serotine (2)
		17/05/17	20:58	Common pipistrelle 30 minutes after sunset. Myotis sp. 43 minutes after sunset	Common pipistrelle Pipistrellus sp. Myotis sp. Leisler's bat Serotine Brown long-eared bat Noctule	20	Common pipistrelle (6) Pipistrellus sp. (1) Myotis sp. (3) Leisler's bat (1) Serotine (6) Brown long-eared bat (2) Noctule (1)
		18/05/17	21:00	Common pipistrelle 20 minutes after sunset. Brown long-eared bat 51 minutes after sunset.	Common pipistrelle Brown long-eared bat Soprano pipistrelle Pipistrellus sp. Myotis sp. Serotine Serotine/Nyctalus sp. Noctule	25	Common pipistrelle (7) Brown long-eared bat (1) Soprano pipistrelle (7) Pipistrellus sp. (2) Myotis sp. (2) Serotine (2) Serotine/Nyctalus sp. (2) Noctule (2)
		19/05/17	21:01	Soprano pipistrelle 7 minutes after sunset	Soprano pipistrelle Common pipistrelle	2	Soprano pipistrelle (1) Common pipistrelle (1)
		20/05/17	21:03	Myotis sp. 40 minutes after sunset	Serotine/Nyctalus sp. Myotis sp. Common pipistrelle Noctule Soprano pipistrelle	14	Serotine/Nyctalus sp. (1) Myotis sp. (2) Common pipistrelle (2) Noctule (1) Soprano pipistrelle (8)
		22/05/17	21:05	Common pipistrelle 31 minutes after sunset. Myotis sp. 34 minutes after sunset	Common pipistrelle Myotis sp. Pipistrellus sp. Serotine Soprano pipistrelle Leisler's bat Lesser horseshoe bat Noctule Unknown	60	Common pipistrelle (27) Myotis sp. (3) Pipistrellus sp. (8) Serotine (8) Soprano pipistrelle (6) Leisler's bat (4) Lesser horseshoe bat (1) Serotine/Nyctalus sp. (1) Noctule (1) Unknown (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	June	13/06/17	21:27	Soprano pipistrelle 1 minute before sunset.	Soprano pipistrelle Common pipistrelle Serotine Myotis sp. Unknown Serotine/Nyctalus sp. Brown long-eared bat Noctule	65	Soprano pipistrelle (8) Common pipistrelle (36) Serotine (2) Myotis sp. (5) Unknown (5) Serotine/Nyctalus sp. (7) Brown long-eared bat (1) Noctule (1)
		14/06/17	21:28	Soprano pipistrelle 9 minutes before sunset. Common pipistrelle 31 minutes after sunset. Myotis sp. 63 minutes after sunset.	Soprano pipistrelle Common pipistrelle Noctule Myotis sp. Serotine Unknown Serotine/Nyctalus sp. Pipistrellus sp. Brown long-eared bat	50	Soprano pipistrelle (4) Common pipistrelle (11) Noctule (3) Myotis sp. (10) Serotine (9) Unknown (4) Serotine/Nyctalus sp. (6) Pipistrellus sp. (2) Brown long-eared bat (1)
		15/06/17	21:28	Soprano pipistrelle 3 minutes before sunset	Soprano pipistrelle Serotine Pipistrellus sp. Common pipistrelle Unknown Myotis sp. Serotine/Nyctalus sp.	14	Soprano pipistrelle (1) Serotine (1) Pipistrellus sp. (2) Common pipistrelle (3) Unknown (2) Myotis sp. (4) Serotine/Nyctalus sp. (1)
		16/06/17	21:29	Common pipistrelle 31 minutes after sunset. Myotis sp. 62 minutes after sunset	Common pipistrelle Myotis sp. Pipistrellus sp. Noctule Serotine/Nyctalus sp. Soprano pipistrelle Unknown	30	Common pipistrelle (7) Myotis sp. (9) Pipistrellus sp. (1) Noctule (1) Serotine/Nyctalus sp. (2) Soprano pipistrelle (6) Unknown (4)
		17/06/17	21:29	Soprano pipistrelle 9 minutes after sunset. Common pipistrelle 35 minutes after sunset.	Soprano pipistrelle Common pipistrelle Leisler's bat Noctule Myotis sp.	96	Soprano pipistrelle (7) Common pipistrelle (61) Leisler's bat (3) Noctule (4) Myotis sp. (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 68 minutes after sunset	Serotine Serotine/Nyctalus sp. Unknown Brown long-eared bat Pipistrellus sp.		Serotine (4) Serotine/Nyctalus sp. (2) Unknown (2) Brown long-eared bat (3) Pipistrellus sp. (2)
		18/06/17	21:29	Soprano pipistrelle 9 minutes after sunset	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Myotis sp. Unknown Serotine/Nyctalus sp. Serotine Leisler's bat Noctule Brown long-eared bat	52	Soprano pipistrelle (7) Common pipistrelle (22) Pipistrellus sp. (2) Myotis sp. (6) Unknown (5) Serotine/Nyctalus sp. (2) Serotine (2) Leisler's bat (2) Noctule (2) Brown long-eared bat (2)
		19/06/17	21:30	Soprano pipistrelle 10 minutes after sunset. Common pipistrelle 37 minutes after sunset	Soprano pipistrelle Common pipistrelle Myotis sp. Brown long-eared bat Leisler's bat Serotine Unknown Pipistrellus sp.	43	Soprano pipistrelle (9) Common pipistrelle (9) Myotis sp. (9) Brown long-eared bat (9) Leisler's bat (2) Serotine (2) Unknown (1) Pipistrellus sp. (2)
	August	08/08/17	20:46	None recorded within the limit.	Pipistrellus sp. Serotine Common pipistrelle Brown long-eared bat Myotis sp. Serotine/Nyctalus sp. Leisler's bat Noctule Soprano pipistrelle	30	Pipistrellus sp. (1) Serotine (1) Common pipistrelle (9) Brown long-eared bat (1) Myotis sp. (3) Serotine/Nyctalus sp. (5) Leisler's bat (6) Noctule (2) Soprano pipistrelle (2)
		09/08/17	20:44	Common pipistrelle 39 minutes after sunset	Common pipistrelle Leisler's bat Myotis sp. Serotine/Nyctalus sp.	125	Common pipistrelle (64) Leisler's bat (10) Myotis sp. (7) Serotine/Nyctalus sp. (15)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle Serotine Unknown Pipistrellus sp.		Soprano pipistrelle (13) Serotine (3) Unknown (8) Pipistrellus sp. (5)
		10/08/17	20:42	Soprano pipistrelle 14 minutes before sunset	Soprano pipistrelle Unknown Serotine Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Leisler's bat Myotis sp. Noctule	35	Soprano pipistrelle (4) Unknown (5) Serotine (2) Common pipistrelle (8) Pipistrellus sp. (1) Serotine/Nyctalus sp. (9) Leisler's bat (3) Myotis sp. (1) Noctule (2)
		11/08/17	20:40	Soprano pipistrelle 4 minutes before sunset. Common pipistrelle 29 minutes after sunset. Myotis sp. 33 minutes after sunset	Soprano pipistrelle Serotine/Nyctalus sp. Common pipistrelle Myotis sp. Brown long-eared bat Leisler's bat Pipistrellus sp.	41	Soprano pipistrelle (5) Serotine/Nyctalus sp. (16) Common pipistrelle (6) Myotis sp. (3) Brown long-eared bat (1) Leisler's bat (6) Serotine (3) Pipistrellus sp. (1)
		12/08/17	20:38	Myotis sp. 59 minutes after sunset	Noctule Unknown Serotine Myotis sp. Serotine/Nyctalus sp. Common pipistrelle Leisler's bat Pipistrellus sp. Soprano pipistrelle	36	Noctule (2) Unknown (3) Serotine (1) Myotis sp. (3) Serotine/Nyctalus sp. (10) Common pipistrelle (4) Leisler's bat (10) Pipistrellus sp. (1) Soprano pipistrelle (1)
		13/08/17	20:37	Soprano pipistrelle 2 minutes before sunset. Common pipistrelle 27 minutes after sunset	Soprano pipistrelle Common pipistrelle Leisler's bat Serotine/Nyctalus sp. Serotine	32	Soprano pipistrelle (2) Common pipistrelle (6) Leisler's bat (13) Serotine/Nyctalus sp. (4) Serotine (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Brown long-eared bat Unknown Myotis sp. Pipistrellus sp.		Brown long-eared bat (1) Unknown (2) Myotis sp. (1) Pipistrellus sp. (1)
		14/08/17	20:35	Common pipistrelle 33 minutes after sunset. Myotis sp. 56 minutes after sunset	Common pipistrelle Leisler's bat Myotis sp. Unknown Serotine/Nyctalus sp. Soprano pipistrelle Noctule Brown long-eared bat	33	Common pipistrelle (10) Leisler's bat (6) Myotis sp. (1) Unknown (3) Serotine/Nyctalus sp. (7) Soprano pipistrelle (3) Noctule (2) Brown long-eared bat (1)
	September	05/09/17	19:48	None recorded within the limit.	Common pipistrelle Serotine/Nyctalus sp. Barbastelle Soprano pipistrelle Myotis sp. Leisler's bat Unknown Brown long-eared bat Serotine	30	Common pipistrelle (6) Serotine/Nyctalus sp. (8) Barbastelle (1) Soprano pipistrelle (3) Myotis sp. (7) Leisler's bat (2) Unknown (1) Brown long-eared bat (1) Serotine (1)
		06/09/17	19:46	Myotis sp.43 minutes after sunset	Noctule Soprano pipistrelle Serotine/Nyctalus sp. Myotis sp. Leisler's bat Unknown Common pipistrelle	18	Noctule (1) Soprano pipistrelle (3) Serotine/Nyctalus sp. (2) Serotine (2) Myotis sp. (2) Leisler's bat (5) Unknown (1) Common pipistrelle (2)
		07/09/17	19:44	Myotis sp. 67 minutes after sunset	Leisler's bat Pipistrellus sp. Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Serotine Unknown	40	Leisler's bat (12) Pipistrellus sp. (1) Soprano pipistrelle (8) Myotis sp. (5) Serotine/Nyctalus sp. (10) Serotine (3) Unknown (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		08/09/17	19:42	None recorded within the limit.	Common pipistrelle Soprano pipistrelle Myotis sp. Serotine Serotine/Nyctalus sp. Unknown Barbastelle Leisler's bat	28	Common pipistrelle (6) Soprano pipistrelle (5) Myotis sp. (3) Serotine (4) Serotine/Nyctalus sp. (4) Unknown (2) Barbastelle (1) Leisler's bat (3)
		09/09/17	19:39	Soprano pipistrelle 25 minutes after sunset. Myotis sp. 57 minutes after sunset.	Soprano pipistrelle Noctule Serotine Myotis sp. Leisler's bat Common pipistrelle Unknown	24	Soprano pipistrelle (4) Noctule (1) Serotine (1) Myotis sp. (4) Leisler's bat (11) Common pipistrelle (1) Unknown (2)
		10/09/17	19:37	Soprano pipistrelle 30 minutes after sunset	Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat Serotine Common pipistrelle	15	Soprano pipistrelle (7) Serotine/Nyctalus sp. (3) Leisler's bat (3) Serotine (1) Common pipistrelle (1)
		11/09/17	19:35	Myotis sp. 52 minutes after sunset	Serotine/Nyctalus sp. Serotine Myotis sp. Soprano pipistrelle Barbastelle Leisler's bat	25	Serotine/Nyctalus sp. (6) Serotine (4) Myotis sp. (6) Soprano pipistrelle (7) Barbastelle (1) Leisler's bat (1)
		12/09/17	19:33	None recorded within the limit.	Unknown Myotis sp. Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Leisler's bat	16	Unknown (2) Myotis sp. (2) Soprano pipistrelle (6) Common pipistrelle (2) Serotine/Nyctalus sp. (3) Leisler's bat (1)
Online 2.1a	June	13/06/17	21:27	Common pipistrelle 29 minutes after sunset. Myotis sp. 50 minutes after sunset	Common pipistrelle Myotis sp. Serotine Noctule	35	Common pipistrelle (6) Myotis sp. (26) Serotine (1) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp.		Serotine/Nyctalus sp. (1)
		14/06/17	21:28	Common pipistrelle 27 minutes after sunset	Common pipistrelle Soprano pipistrelle Serotine Serotine/Nyctalus sp. Noctule Brown long-eared bat Myotis sp.	22	Common pipistrelle (10) Soprano pipistrelle (1) Serotine (1) Serotine/Nyctalus sp. (2) Noctule (2) Brown long-eared bat (1) Myotis sp. (5)
		15/06/17	21:28	Common pipistrelle 25 minutes after sunset. Myotis sp. 62 minutes after sunset	Common pipistrelle Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Brown long-eared bat	78	Common pipistrelle (27) Soprano pipistrelle (3) Myotis sp. (44) Serotine/Nyctalus sp. (2) Brown long-eared bat (2)
		16/06/17	21:29	Common pipistrelle 26 minutes after sunset. Myotis sp. 69 minutes after sunset.	Common pipistrelle Noctule Soprano pipistrelle Myotis sp. Pipistrellus sp. Unknown	54	Common pipistrelle (9) Soprano pipistrelle (34) Noctule (1) Myotis sp. (6) Pipistrellus sp. (2) Unknown (1)
		17/06/17	21:29	Common pipistrelle 34 minutes after sunset. Myotis sp. 62 minutes after sunset	Common pipistrelle Soprano pipistrelle Myotis sp. Leisler's bat Pipistrellus sp. Brown long-eared bat Serotine/Nyctalus sp.	38	Common pipistrelle (19) Soprano pipistrelle (5) Myotis sp. (3) Leisler's bat (7) Pipistrellus sp. (1) Brown long-eared bat (1) Serotine/Nyctalus sp. (2)
		18/06/17	21:29	Common pipistrelle 33 minutes after sunset. Myotis sp. 65 minutes after sunset	Common pipistrelle Soprano pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp. Noctule	62	Common pipistrelle (22) Soprano pipistrelle (1) Myotis sp. (4) Leisler's bat (27) Serotine/Nyctalus sp. (7) Noctule (1)
		19/06/17	21:30	Common pipistrelle 28 minutes after sunset. Myotis sp. 68 minutes after sunset.	Common pipistrelle Serotine Unknown Myotis sp.	44	Common pipistrelle (9) Serotine (1) Unknown (5) Myotis sp. (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle Pipistrellus sp. Noctule		Leisler's bat (14) Serotine/Nyctalus sp. (4) Soprano pipistrelle (1) Pipistrellus sp. (1) Noctule (1)
	July	12/07/17	21:23	Common pipistrelle 34 minutes after sunset.	Common pipistrelle Soprano pipistrelle Serotine/Nyctalus sp. Myotis sp. Noctule Unknown Brown long-eared bat	29	Common pipistrelle (12) Soprano pipistrelle (3) Serotine/Nyctalus sp. (3) Myotis sp. (5) Noctule (1) Unknown (2) Pipistrellus sp. (1) Brown long-eared bat (2)
		13/07/17	21:22	Common pipistrelle 27 minutes after sunset. Soprano pipistrelle 31 minutes sunset. Brown long-eared bat 61 minutes after sunset	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Noctule Serotine/Nyctalus sp. Brown long-eared bat Unknown Serotine Myotis sp.	52	Common pipistrelle (12) Pipistrellus sp. (3) Soprano pipistrelle (5) Noctule (4) Serotine/Nyctalus sp. (4) Brown long-eared bat (5) Unknown (6) Serotine (3) Myotis sp. (10)
		14/07/17	21:21	Common pipistrelle 34 minutes after sunset	Common pipistrelle Myotis sp. Soprano pipistrelle Noctule Unknown	24	Common pipistrelle (12) Myotis sp. (9) Soprano pipistrelle (1) Noctule (1) Unknown (1)
		15/07/17	21:20	Common pipistrelle 26 minutes after sunset. Brown long-eared bat 57 minutes after sunset	Common pipistrelle Pipistrellus sp. Serotine Leisler's bat Brown long-eared bat Noctule Unknown Myotis sp. Serotine/Nyctalus sp.	78	Common pipistrelle (18) Pipistrellus sp. (11) Serotine (9) Leisler's bat (2) Brown long-eared bat (4) Noctule (2) Unknown (11) Myotis sp. (14) Serotine/Nyctalus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle		Soprano pipistrelle (3)
		16/07/17	21:19	Common pipistrelle 29 minutes after sunset.	Common pipistrelle Serotine Soprano pipistrelle Leisler's bat Pipistrellus sp. Brown long-eared bat Noctule Serotine/Nyctalus sp. Myotis sp. Unknown	58	Common pipistrelle (24) Serotine (6) Soprano pipistrelle (11) Leisler's bat (2) Pipistrellus sp. (1) Brown long-eared bat (5) Noctule (1) Serotine/Nyctalus sp. (2) Myotis sp. (5) Unknown (1)
		17/07/17	21:18	Common pipistrelle 27 minutes after sunset. Soprano pipistrelle 36 minutes after sunset.	Common pipistrelle Soprano pipistrelle Serotine Noctule Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat Unknown Pipistrellus sp.	41	Common pipistrelle (9) Soprano pipistrelle (5) Serotine (14) Noctule (1) Leisler's bat (5) Serotine/Nyctalus sp. (3) Brown long-eared bat (1) Unknown (1) Pipistrellus sp. (2)
		18/07/17	21:17	Common pipistrelle 30 minutes after sunset	Common pipistrelle Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp. Serotine Unknown Brown long-eared bat	77	Common pipistrelle (17) Leisler's bat (16) Serotine/Nyctalus sp. (19) Pipistrellus sp. (2) Serotine (21) Unknown (1) Brown long-eared bat (1)
	August	08/08/17	20:46		Pipistrellus sp. Common pipistrelle Leisler's bat Soprano pipistrelle Noctule Serotine/Nyctalus sp. Brown long-eared bat Lesser horseshoe bat Serotine	57	Pipistrellus sp. (7) Common pipistrelle (7) Leisler's bat (14) Soprano pipistrelle (13) Noctule (1) Serotine/Nyctalus sp. (5) Brown long-eared bat (1) Lesser horseshoe bat (1) Serotine (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp.		Myotis sp. (1)
		09/08/17	20:44	Common pipistrelle 14 minutes after sunset	Common pipistrelle Noctule Serotine Pipistrellus sp. Unknown Leisler's bat Serotine/Nyctalus sp. Myotis sp. Brown long-eared bat Soprano pipistrelle	180	Common pipistrelle (107) Noctule (2) Serotine (6) Pipistrellus sp. (20) Unknown (5) Leisler's bat (23) Serotine/Nyctalus sp. (7) Myotis sp. (1) Brown long-eared bat (3) Soprano pipistrelle (6)
		10/08/17	20:42	Myotis sp. 59 minutes after sunset.	Common pipistrelle Pipistrellus sp. Myotis sp. Unknown Leisler's bat Soprano pipistrelle Serotine/Nyctalus sp. Serotine Brown long-eared bat	33	Common pipistrelle (10) Pipistrellus sp. (10) Myotis sp. (3) Unknown (1) Leisler's bat (3) Soprano pipistrelle (2) Serotine/Nyctalus sp. (2) Serotine (1) Brown long-eared bat (1)
		11/08/17	20:38	Common pipistrelle 26 minutes after sunset. Soprano pipistrelle 32 minutes after sunset	Common pipistrelle Soprano pipistrelle Unknown Pipistrellus sp. Serotine/Nyctalus sp. Leisler's bat Unknown Serotine Lesser horseshoe bat Myotis sp.	52	Common pipistrelle (21) Soprano pipistrelle (7) Unknown (4) Pipistrellus sp. (2) Serotine/Nyctalus sp. (6) Leisler's bat (6) Unknown (4) Serotine (4) Lesser horseshoe bat (1) Myotis sp. (1)
		12/08/17	20:37	Common pipistrelle 36 minutes after sunset	Noctule Pipistrellus sp. Common pipistrelle Soprano pipistrelle Leisler's bat Serotine/Nyctalus sp.	28	Noctule (1) Pipistrellus sp. (3) Common pipistrelle (9) Soprano pipistrelle (1) Leisler's bat (5) Serotine/Nyctalus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine Brown long-eared bat		Serotine (1) Brown long-eared bat (4)
		13/08/17	20:35	Common pipistrelle 39 minutes after sunset	Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Unknown Brown long-eared bat Soprano pipistrelle Leisler's bat	13	Common pipistrelle (3) Pipistrellus sp. (2) Serotine/Nyctalus sp. (3) Unknown (1) Brown long-eared bat (2) Soprano pipistrelle (1) Leisler's bat (1)
		14/08/17	20:33	Common pipistrelle 31 minutes after sunset. Brown long-eared bat 53 minutes after sunset. Lesser horseshoe bat 57 minutes after sunset	Noctule Common pipistrelle Leisler's bat Unknown Pipistrellus sp. Brown long-eared bat Lesser horseshoe bat Serotine/Nyctalus sp. Serotine	33	Noctule (1) Common pipistrelle (7) Leisler's bat (12) Unknown (3) Pipistrellus sp. (2) Brown long-eared bat (2) Lesser horseshoe bat (1) Serotine/Nyctalus sp. (4) Serotine (1)
	September	05/09/17	19:48	None recorded within the limit.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Myotis sp. Unknown Barbastelle	41	Soprano pipistrelle (7) Common pipistrelle (5) Pipistrellus sp. (1) Serotine/Nyctalus sp. (13) Myotis sp. (13) Unknown (1) Barbastelle (1)
		06/09/17	19:46	Unknown bat 15 minutes before sunset.	Unknown Leisler's bat Soprano pipistrelle Pipistrellus sp. Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Brown long-eared bat	34	Unknown (2) Leisler's bat (4) Soprano pipistrelle (4) Pipistrellus sp. (1) Common pipistrelle (2) Serotine/Nyctalus sp. (14) Myotis sp. (5) Brown long-eared bat (2)
		07/09/17	19:44	Common pipistrelle 24 minutes after sunset.	Common pipistrelle Soprano pipistrelle Myotis sp.	58	Common pipistrelle (19) Soprano pipistrelle (11) Myotis sp. (10)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle 28 minutes after sunset.	Unknown Leisler's bat Pipistrellus sp. Serotine/Nyctalus sp. Barbastelle		Unknown (2) Leisler's bat (1) Pipistrellus sp. (3) Serotine/Nyctalus sp. (11) Barbastelle (1)
		08/09/17	19:42	Soprano pipistrelle 26 minutes after sunset. Common pipistrelle 36 minutes after sunset. Myotis 73 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Leisler's bat Serotine Brown long-eared bat	33	Soprano pipistrelle (3) Common pipistrelle (1) Serotine/Nyctalus sp. (12) Myotis sp. (8) Leisler's bat (1) Serotine (1) Brown long-eared bat (3)
		09/09/17	19:39	Common pipistrelle 32 minutes after sunset. Soprano pipistrelle 36 minutes after sunset	Common pipistrelle Soprano pipistrelle Leisler's bat Serotine/Nyctalus sp. Myotis sp. Barbastelle	10	Common pipistrelle (1) Soprano pipistrelle (1) Leisler's bat (1) Serotine/Nyctalus sp. (4) Myotis sp. (1) Barbastelle (2)
		10/09/17	19:37	Myotis sp. 75 minutes after sunset	Serotine/Nyctalus sp. Soprano pipistrelle Myotis sp. Brown long-eared bat Barbastelle	33	Serotine/Nyctalus sp. (14) Soprano pipistrelle (1) Myotis sp. (15) Brown long-eared bat (1) Barbastelle (2)
		11/09/17	19:35	None recorded within the limit.	Myotis sp. Serotine/Nyctalus sp. Common pipistrelle Barbastelle Brown long-eared bat	43	Myotis sp. (20) Serotine/Nyctalus sp. (18) Common pipistrelle (2) Barbastelle (1) Brown long-eared bat (2)
	October	03/10/17	18:45	Soprano pipistrelle 25 minutes after sunset. Common pipistrelle 34 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine Serotine/Nyctalus sp. Myotis sp. Lesser horseshoe bat Barbastelle Unknown	27	Soprano pipistrelle (6) Common pipistrelle (2) Serotine (1) Serotine/Nyctalus sp. (3) Myotis sp. (11) Lesser horseshoe bat (2) Barbastelle (1) Unknown (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		04/10/17	18:43	None recorded within the limit.	Pipistrellus sp. Unknown Common pipistrelle Barbastelle Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp.	37	Pipistrellus sp. (2) Unknown (2) Common pipistrelle (12) Barbastelle (1) Soprano pipistrelle (6) Myotis sp. (5) Serotine/Nyctalus sp. (9)
		05/10/17	18:41	Soprano pipistrelle 32 minutes after sunset	Soprano pipistrelle Serotine/Nyctalus sp. Common pipistrelle Serotine Myotis sp. Unknown	19	Soprano pipistrelle (8) Serotine/Nyctalus sp. (3) Common pipistrelle (2) Serotine (1) Myotis sp. (3) Unknown (2)
		06/10/17	18:38	Pipistrellus sp. 32 minutes after sunset	Pipistrellus sp. Serotine/Nyctalus sp. Serotine Common pipistrelle Myotis sp. Soprano pipistrelle	34	Pipistrellus sp. (5) Serotine/Nyctalus sp. (3) Serotine (2) Common pipistrelle (12) Myotis sp. (7) Soprano pipistrelle (5)
		07/10/17	18:36	Soprano pipistrelle 32 minutes after sunset. Myotis sp. 61 minutes after sunset	Soprano pipistrelle Serotine/Nyctalus sp. Myotis sp. Common pipistrelle Unknown	31	Soprano pipistrelle (3) Serotine/Nyctalus sp. (15) Myotis sp. (11) Common pipistrelle (1) Unknown (1)
		08/10/17	18:34	Soprano pipistrelle 25 minutes after sunset. Common pipistrelle 30 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Serotine Unknown Pipistrellus sp. Lesser horseshoe bat Myotis sp.	27	Soprano pipistrelle (6) Common pipistrelle (6) Serotine/Nyctalus sp. (4) Serotine (3) Unknown (2) Pipistrellus sp. (4) Lesser horseshoe bat (1) Myotis sp. (1)
		09/10/17	18:32	Soprano pipistrelle 30 minutes after sunset.	Soprano pipistrelle Serotine Serotine/Nyctalus sp. Unknown	24	Soprano pipistrelle (6) Serotine (3) Serotine/Nyctalus sp. (7) Unknown (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Myotis sp.		Common pipistrelle (4) Myotis sp. (1)
		10/10/17	18:30	None recorded within the limit.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Myotis sp. Unknown	27	Soprano pipistrelle (10) Common pipistrelle (5) Serotine/Nyctalus sp. (7) Myotis sp. (4) Unknown (1)
Online 2.1b	June	13/06/17	21:27	Common pipistrelle 32 minutes after sunset. Myotis sp. 55 minutes after sunset.	Common pipistrelle Myotis sp. Leisler's bat Soprano pipistrelle Serotine Unknown Serotine/Nyctalus sp.	55	Common pipistrelle (38) Myotis sp. (1) Leisler's bat (1) Soprano pipistrelle (6) Serotine (5) Unknown (3) Serotine/Nyctalus sp. (1)
		14/06/17	21:28	Soprano pipistrelle 18 minutes after sunset. Common pipistrelle 37 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine Brown long-eared bat Serotine/Nyctalus sp. Noctule	25	Soprano pipistrelle (2) Common pipistrelle (11) Serotine (5) Brown long-eared bat (1) Serotine/Nyctalus sp. (3) Noctule (3)
		15/06/17	21:28	Soprano pipistrelle 29 minutes after sunset	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Noctule Unknown Brown long-eared bat	31	Soprano pipistrelle (2) Common pipistrelle (23) Pipistrellus sp. (2) Noctule (2) Unknown (1) Brown long-eared bat (1)
		16/06/17	21:29	Soprano pipistrelle 37 minutes after sunset. Common pipistrelle 39 minutes after sunset. Myotis sp. 64 minute after sunset.	Pipistrellus sp. Soprano pipistrelle Common pipistrelle Myotis sp. Lesser horseshoe bat Unknown	71	Pipistrellus sp. (17) Soprano pipistrelle (8) Common pipistrelle (37) Myotis sp. (4) Lesser horseshoe bat (3) Unknown (2)
		17/06/17	21:29	Common pipistrelle 34 minutes after sunset. Myotis sp. 69 minutes after sunset.	Common pipistrelle Soprano pipistrelle Serotine Pipistrellus sp.	34	Common pipistrelle (7) Soprano pipistrelle (1) Serotine (8) Pipistrellus sp. (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Noctule Unknown Brown long-eared bat		Myotis sp. (1) Noctule (8) Unknown (5) Brown long-eared bat (1)
		18/06/17	21:29	Soprano pipistrelle 25 minutes after sunset. Common pipistrelle 33 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Serotine/Nyctalus sp. Leisler's bat Pipistrellus sp. Noctule Serotine	38	Soprano pipistrelle (5) Common pipistrelle (13) Unknown (1) Serotine/Nyctalus sp. (5) Leisler's bat (8) Pipistrellus sp. (4) Noctule (1) Serotine (1)
		19/06/17	21:30	Soprano pipistrelle 15 minutes after sunset. Common pipistrelle 29 minutes after sunset. Myotis sp. 71 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Serotine Leisler's bat Noctule Myotis sp. Serotine/Nyctalus sp.	52	Soprano pipistrelle (5) Common pipistrelle (4) Pipistrellus sp. (5) Serotine (6) Leisler's bat (13) Noctule (4) Myotis sp. (3) Serotine/Nyctalus sp. (12)
	July	20/07/17	21:15	None recorded within the limit.	Unknown Myotis sp.	2	Unknown (1) Myotis sp. (1)
		22/07/17	21:12	Pipistrellus sp. 32 minutes after sunset	Pipistrellus sp. Common pipistrelle Serotine/Nyctalus sp. Soprano pipistrelle Noctule Brown long-eared bat Unknown	39	Pipistrellus sp. (2) Common pipistrelle (24) Serotine/Nyctalus sp. (3) Soprano pipistrelle (1) Noctule (1) Brown long-eared bat (6) Unknown (1)
		23/07/17	21:11	Common pipistrelle 17 minutes after sunset	Common pipistrelle Unknown Soprano pipistrelle Pipistrellus sp. Brown long-eared bat Serotine/Nyctalus sp. Leisler's bat	438	Common pipistrelle (271) Unknown (95) Soprano pipistrelle (13) Pipistrellus sp. (43) Brown long-eared bat (5) Serotine/Nyctalus sp. (5) Leisler's bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine Myotis sp.		Serotine (4) Myotis sp. (1)
		24/07/17	21:10	Soprano pipistrelle 39 minutes after sunset	Soprano pipistrelle Serotine Common pipistrelle Pipistrellus sp. Myotis sp. Unknown Serotine/Nyctalus sp. Brown long-eared bat	169	Soprano pipistrelle (7) Serotine (10) Common pipistrelle (133) Pipistrellus sp. (7) Myotis sp. (4) Unknown (5) Serotine/Nyctalus sp. (2) Brown long-eared bat (1)
		25/07/17	21:08	None recorded within the limit.	Common pipistrelle Leisler's bat Myotis sp. Serotine Unknown Soprano pipistrelle Serotine/Nyctalus sp. Noctule Brown long-eared bat	22	Common pipistrelle (8) Leisler's bat (2) Myotis sp. (2) Serotine (2) Unknown (1) Soprano pipistrelle (1) Serotine/Nyctalus sp. (2) Noctule (2) Brown long-eared bat (2)
		26/07/17	21:07	None recorded within the limit.	Common pipistrelle Pipistrellus sp. Soprano pipistrelle Myotis sp. Serotine/Nyctalus sp. Brown long-eared bat Serotine Noctule	42	Common pipistrelle (20) Pipistrellus sp. (3) Soprano pipistrelle (2) Myotis sp. (2) Serotine/Nyctalus sp. (2) Brown long-eared bat (1) Serotine (11) Noctule (1)
	August	08/08/17	20:46	Common pipistrelle 25 minutes after sunset	Common pipistrelle Noctule Serotine/Nyctalus sp.	8	Common pipistrelle (5) Noctule (1) Serotine/Nyctalus sp. (2)
		09/08/17	20:44	Common pipistrelle 22 minutes after sunset	Common pipistrelle Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat	13	Common pipistrelle (8) Soprano pipistrelle (2) Serotine/Nyctalus sp. (1) Leisler's bat (2)
		10/08/17	20:42	Common pipistrelle 31 minutes after sunset	Common pipistrelle Unknown	14	Common pipistrelle (8) Unknown (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Serotine/Nyctalus sp. Leisler's bat		Serotine/Nyctalus sp. (1) Leisler's bat (1)
		11/08/17	20:40	Common pipistrelle 17 minutes after sunset.	Common pipistrelle Serotine/Nyctalus sp. Unknown Serotine Pipistrellus sp. Soprano pipistrelle Noctule Leisler's bat	48	Common pipistrelle (21) Serotine/Nyctalus sp. (6) Unknown (3) Serotine (3) Pipistrellus sp. (3) Soprano pipistrelle (5) Noctule (3) Leisler's bat (2)
		12/08/17	20:38	Common pipistrelle 28 minutes after sunset. Myotis sp. 49 minutes after sunset	Common pipistrelle Myotis sp. Leisler's bat Serotine/Nyctalus sp.	18	Common pipistrelle (9) Myotis sp. (3) Leisler's bat (3) Serotine/Nyctalus sp. (3)
		13/08/17	20:37	Common pipistrelle 31 minutes after sunset. Myotis sp. 40 minutes after sunset	Common pipistrelle Leisler's bat Brown long-eared bat Serotine/Nyctalus sp.	9	Common pipistrelle (4) Leisler's bat (3) Brown long-eared bat (1) Serotine/Nyctalus sp. (1)
		14/08/17	20:35	Common pipistrelle 22 minutes after sunset. Brown long-eared bat 31 minutes after sunset	Common pipistrelle Brown long-eared bat Noctule Leisler's bat Serotine/Nyctalus sp. Myotis sp. Pipistrellus sp.	22	Common pipistrelle (4) Brown long-eared bat (1) Noctule (1) Leisler's bat (13) Serotine/Nyctalus sp. (1) Myotis sp. (1) Pipistrellus sp. (1)
	September	05/09/17	19:48	Common pipistrelle 22 minutes after sunset	Common pipistrelle Leisler's bat Pipistrellus sp. Serotine/Nyctalus sp. Unknown	96	Common pipistrelle (55) Leisler's bat (3) Pipistrellus sp. (32) Serotine/Nyctalus sp. (4) Unknown (1)
		06/09/17	19:46	Common pipistrelle 17 minutes after sunset. Myotis sp. 70 minutes after sunset	Common pipistrelle Noctule Pipistrellus sp. Soprano pipistrelle Myotis sp.	22	Common pipistrelle (7) Noctule (6) Pipistrellus sp. (1) Soprano pipistrelle (1) Myotis sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Serotine/Nyctalus sp.		Leisler's bat (2) Serotine/Nyctalus sp. (1)
		07/09/17	19:44	Common pipistrelle 27 minutes after sunset	Noctule Common pipistrelle Serotine/Nyctalus sp. Leisler's bat Pipistrellus sp. Myotis sp. Soprano pipistrelle Unknown	26	Noctule (3) Common pipistrelle (11) Serotine/Nyctalus sp. (4) Leisler's bat (4) Pipistrellus sp. (1) Myotis sp. (1) Soprano pipistrelle (1) Unknown (1)
		08/09/17	19:42	Common pipistrelle 21 minutes after sunset	Common pipistrelle Leisler's bat Pipistrellus sp. Myotis sp. Serotine/Nyctalus sp. Serotine Lesser horseshoe bat Soprano pipistrelle Noctule	44	Common pipistrelle (28) Leisler's bat (5) Pipistrellus sp. (2) Myotis sp. (1) Serotine/Nyctalus sp. (2) Serotine (1) Lesser horseshoe bat (2) Soprano pipistrelle (1) Noctule (1)
		09/09/17	19:39	Common pipistrelle 20 minutes after sunset. Brown long-eared bat 51 minutes after sunset.	Common pipistrelle Leisler's bat Pipistrellus sp. Brown long-eared bat Myotis sp. Serotine/Nyctalus sp. Noctule	57	Common pipistrelle (48) Leisler's bat (2) Pipistrellus sp. (2) Brown long-eared bat (1) Myotis sp. (2) Serotine/Nyctalus sp. (1) Noctule (1)
		10/09/17	19:37	Common pipistrelle 36 minutes after sunset. Myotis sp. 71 minutes after sunset	Common pipistrelle Leisler's bat Myotis sp. Brown long-eared bat Lesser horseshoe bat Soprano pipistrelle	16	Common pipistrelle (7) Leisler's bat (2) Myotis sp. (2) Brown long-eared bat (1) Lesser horseshoe bat (1) Soprano pipistrelle (1)
		11/09/17	19:35	Brown long-eared bat 49 minutes after sunset	Unknown Brown long-eared bat Leisler's bat Serotine/Nyctalus sp.	13	Unknown (1) Brown long-eared bat (1) Leisler's bat (3) Serotine/Nyctalus sp. (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Pipistrellus sp. Noctule		Common pipistrelle (4) Pipistrellus sp. (1) Noctule (1)
		12/09/17	19:33	Soprano pipistrelle 19 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Noctule	9	Soprano pipistrelle (1) Common pipistrelle (6) Serotine/Nyctalus sp. (1) Noctule (1)
	October	03/10/17	18:45	Soprano pipistrelle 23 minutes after sunset. Common pipistrelle 25 minutes after sunset. Myotis sp. 57 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine Serotine/Nyctalus sp. Myotis sp. Leisler's bat Unknown Pipistrellus sp. Lesser horseshoe bat Brown long-eared bat	31	Soprano pipistrelle (2) Common pipistrelle (6) Serotine (4) Serotine/Nyctalus sp. (6) Myotis sp. (5) Leisler's bat (2) Unknown (2) Pipistrellus sp. (1) Lesser horseshoe bat (!) Brown long-eared bat (2)
		04/10/17	18:43	Common pipistrelle 26 minutes after sunset	Common pipistrelle Pipistrellus sp. Serotine/Nyctalus sp. Serotine Myotis sp. Leisler's bat Lesser horseshoe bat	20	Common pipistrelle (8) Pipistrellus sp. (1) Serotine/Nyctalus sp. (1) Serotine (5) Myotis sp. (2) Leisler's bat (2) Lesser horseshoe bat (1)
		05/10/17	18:41	Common pipistrelle 27 minutes after sunset. Soprano pipistrelle 29 minutes after sunset Myotis sp. 65 minutes after sunset	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Serotine Myotis sp. Serotine/Nyctalus sp. Leisler's bat Noctule	53	Common pipistrelle (16) Soprano pipistrelle (3) Pipistrellus sp. (17) Serotine (4) Myotis sp. (7) Serotine/Nyctalus sp. (4) Leisler's bat (1) Noctule (1)
		06/10/17	18:38	Common pipistrelle 29 minutes after sunset. Soprano pipistrelle 35 minutes after sunset.	Unknown Common pipistrelle Soprano pipistrelle Lesser horseshoe bat	29	Unknown (2) Common pipistrelle (1) Soprano pipistrelle (2) Lesser horseshoe bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Lesser horseshoe bat 35 minutes after sunset	Serotine/Nyctalus sp. Leisler's bat Serotine Noctule Pipistrellus sp. Brown long-eared bat Myotis sp.		Serotine/Nyctalus sp. (6) Leisler's bat (10) Serotine (2) Noctule (1) Pipistrellus sp. (1) Brown long-eared bat (2) Myotis sp. (1)
		07/10/17	18:36	Common pipistrelle 31 minutes after sunset. Myotis sp. 60 minutes after sunset	Common pipistrelle Serotine Myotis sp. Noctule Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle Lesser horseshoe bat Pipistrellus sp.	73	Common pipistrelle (14) Serotine (19) Myotis sp. (5) Noctule (1) Leisler's bat (19) Serotine/Nyctalus sp. (9) Soprano pipistrelle (3) Lesser horseshoe bat (2) Pipistrellus sp. (1)
		08/10/17	18:34	Pipistrellus sp. 24 minutes after sunset. Myotis sp.53 minutes after sunset	Noctule Pipistrellus sp. Serotine/Nyctalus sp. Serotine Myotis sp. Unknown Leisler's bat Common pipistrelle	48	Noctule (4) Pipistrellus sp. (4) Serotine/Nyctalus sp. (6) Serotine (14) Myotis sp. (1) Unknown (3) Leisler's bat (9) Common pipistrelle (4)
		09/10/17	18:32	Common pipistrelle 32 minutes after sunset	Common pipistrelle Pipistrellus sp. Serotine Leisler's bat Serotine/Nyctalus sp. Noctule	20	Common pipistrelle (4) Pipistrellus sp. (1) Serotine (1) Leisler's bat (10) Serotine/Nyctalus sp. (2) Noctule (2)
		10/10/17	18:30	Soprano pipistrelle 23 minutes after sunset	Soprano pipistrelle Serotine Common pipistrelle Serotine/Nyctalus sp. Brown long-eared bat Leisler's bat	23	Soprano pipistrelle (1) Serotine (9) Common pipistrelle (2) Serotine/Nyctalus sp. (7) Brown long-eared bat (1) Leisler's bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp.		Pipistrellus sp. (1)
Online 2.1c	April	11/04/17	20:01	None recorded within the limit.	Soprano pipistrelle Lesser horseshoe bat	2	Soprano pipistrelle (1) Lesser horseshoe bat (1)
		12/04/17	20:03	None recorded within the limit.	Common pipistrelle Myotis sp. Pipistrellus sp. Brown long-eared bat Lesser horseshoe bat Serotine Unknown Soprano pipistrelle	110	Common pipistrelle (47) Myotis sp. (4) Pipistrellus sp. (20) Brown long-eared bat (19) Lesser horseshoe bat (3) Serotine (2) Unknown (14) Soprano pipistrelle (1)
		13/04/17	20:05	Myotis sp. 63 minutes after sunset	Pipistrellus sp. Unknown Myotis sp. Brown long-eared bat/Myotis sp. Lesser horseshoe bat	8	Pipistrellus sp. (1) Unknown (1) Myotis sp. (4) Brown long-eared bat/Myotis sp. (1) Lesser horseshoe bat (1)
		14/04/17	20:06	Myotis sp. 53 minutes after sunset.	Pipistrellus sp. Common pipistrelle Myotis sp. Serotine Unknown Brown long-eared bat	102	Pipistrellus sp. (6) Common pipistrelle (13) Myotis sp. (1) Serotine (70) Unknown (3) Brown long-eared bat (9)
		15/04/17	20:08	None recorded within the limit.	Brown long-eared bat/Myotis sp. Brown long-eared bat Myotis sp./	3	Brown long-eared bat/Myotis sp. (1) Brown long-eared bat (1) Myotis sp./ (1)
		16/04/17	20:09	Common pipistrelle 30 minutes after sunset. Brown long-eared bat 37 minutes after sunset. Lesser horseshoe bat 55 minutes after sunset. Myotis sp. 56 minutes after sunset	Common pipistrelle Unknown Brown long-eared bat Serotine Pipistrellus sp. Lesser horseshoe bat Myotis sp. Brown long-eared bat/Myotis sp.	63	Common pipistrelle (9) Unknown (4) Brown long-eared bat (5) Serotine (37) Pipistrellus sp. (2) Lesser horseshoe bat (1) Myotis sp. (4) Brown long-eared bat/Myotis sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		17/04/17	20:11	Soprano pipistrelle 31 minutes after sunset. Lesser horseshoe bat 47 minutes after sunset. Brown long-eared bat/Myotis sp. 55 minutes after sunset	Soprano pipistrelle Pipistrellus sp. Common pipistrelle Noctule Lesser horseshoe bat Unknown Serotine Brown long-eared bat/Myotis sp.	46	Soprano pipistrelle (3) Pipistrellus sp. (1) Common pipistrelle (2) Noctule (1) Lesser horseshoe bat (3) Unknown (15) Serotine (19) Brown long-eared bat/Myotis sp. (2)
		18/04/17	20:13	Soprano pipistrelle 37 minutes after sunset	Nyctalus sp. Soprano pipistrelle Serotine Pipistrellus sp. Unknown Myotis sp.	6	Nyctalus sp. (1) Soprano pipistrelle (1) Serotine (1) Pipistrellus sp. (1) Unknown (1) Myotis sp. (1)
	May	16/05/17	20:57	Common pipistrelle 29 minutes after sunset. Brown long-eared bat 47 minutes after sunset.	Common pipistrelle Brown long-eared bat Serotine/Nyctalus sp. Leisler's bat Serotine	25	Common pipistrelle (10) Brown long-eared bat (2) Serotine/Nyctalus sp. (7) Leisler's bat (4) Serotine (2)
		17/05/17	20:58	None recorded within the limit.	Serotine Noctule Common pipistrelle Pipistrellus sp. Brown long-eared bat Myotis sp.	18	Serotine (5) Noctule (1) Common pipistrelle (5) Pipistrellus sp. (3) Brown long-eared bat (2) Myotis sp. (2)
		18/05/17	21:00	None recorded within the limit.	Noctule Common pipistrelle Serotine Pipistrellus sp. Leisler's bat Brown long-eared bat Myotis sp.	10	Noctule (1) Common pipistrelle (1) Serotine (2) Pipistrellus sp. (1) Leisler's bat (1) Brown long-eared bat (1) Myotis sp. (3)
		19/05/17	21:01	Myotis sp. 62 minutes after sunset.	Common pipistrelle Noctule Soprano pipistrelle	22	Common pipistrelle (2) Noctule (3) Soprano pipistrelle (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Myotis sp. Serotine/Nyctalus sp. Serotine		Myotis sp. (4) Serotine/Nyctalus sp. (1) Serotine (11)
		20/05/17	21:03	Myotis sp. 61 minutes after sunset	Serotine Common pipistrelle Myotis sp. Brown long-eared bat Leisler's bat Serotine/Nyctalus sp. Soprano pipistrelle	22	Serotine (7) Common pipistrelle (4) Myotis sp. (5) Brown long-eared bat (1) Leisler's bat (1) Serotine/Nyctalus sp. (3) Soprano pipistrelle (1)
		21/05/17	21:04	Noctule 9 minutes after sunset. Myotis sp. 58 minutes after sunset	Noctule Common pipistrelle Myotis sp. Serotine Serotine/Nyctalus sp. Brown long-eared bat Leisler's bat Barbastelle Pipistrellus sp.	39	Noctule (5) Common pipistrelle (15) Myotis sp. (5) Serotine (4) Serotine/Nyctalus sp. (5) Brown long-eared bat (1) Leisler's bat (2) Barbastelle (1) Pipistrellus sp. (1)
		22/05/17	21:05	Myotis sp. 57 minutes after sunset	Soprano pipistrelle Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Leisler's bat Serotine Pipistrellus sp. Noctule Unknown Brown long-eared bat	76	Soprano pipistrelle (29) Common pipistrelle (13) Myotis sp. (3) Serotine/Nyctalus sp. (5) Leisler's bat (5) Serotine (9) Pipistrellus sp. (6) Noctule (4) Unknown (1) Brown long-eared bat (1)
	June	13/06/17	21:27	Common pipistrelle 36 minutes after sunset. Myotis sp. 72 minutes after sunset	Common pipistrelle Serotine/Nyctalus sp. Serotine Myotis sp. Leisler's bat Soprano pipistrelle Brown long-eared bat	488	Common pipistrelle (233) Serotine/Nyctalus sp. (12) Serotine (54) Myotis sp. (48) Leisler's bat (4) Soprano pipistrelle (58) Brown long-eared bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Lesser horseshoe bat Unknown Pipistrellus sp.		Lesser horseshoe bat (4) Unknown (67) Pipistrellus sp. (7)
		14/06/17	21:28	Common pipistrelle 35 minutes after sunset. Myotis sp. 72 minutes after sunset	Common pipistrelle Unknown Serotine/Nyctalus sp. Serotine Myotis sp. Soprano pipistrelle Brown long-eared bat Pipistrellus sp. Noctule	263	Common pipistrelle (128) Unknown (28) Serotine/Nyctalus sp. (5) Serotine (22) Myotis sp. (12) Soprano pipistrelle (12) Brown long-eared bat (2) Pipistrellus sp. (1) Noctule (2)
		15/06/17	21:28	Myotis sp. 77 minutes after sunset	Soprano pipistrelle Common pipistrelle Myotis sp. Unknown Serotine/Nyctalus sp.	26	Soprano pipistrelle (2) Common pipistrelle (15) Myotis sp. (7) Unknown (1) Serotine/Nyctalus sp. (1)
		16/06/17	21:29	Common pipistrelle 36 minutes after sunset. Lesser horseshoe bat 51 minutes after sunset. Myotis sp. 60 minutes after sunset	Common pipistrelle Lesser horseshoe bat Unknown Soprano pipistrelle Myotis sp. Serotine Brown long-eared bat Nathusius' pipistrelle Serotine/Nyctalus sp.	308	Common pipistrelle (256) Lesser horseshoe bat (1) Unknown (7) Soprano pipistrelle (7) Myotis sp. (27) Serotine (4) Brown long-eared bat (2) Nathusius' pipistrelle (1) Serotine/Nyctalus sp. (3)
		17/06/17	21:29	Common pipistrelle 38 minutes after sunset. Myotis sp. 70 minutes after sunset	Common pipistrelle Unknown Serotine Myotis sp. Serotine/Nyctalus sp. Soprano pipistrelle Barbastelle Lesser horseshoe bat Pipistrellus sp. Leisler's bat	358	Common pipistrelle (237) Unknown (48) Serotine (14) Myotis sp. (34) Serotine/Nyctalus sp. (2) Soprano pipistrelle (7) Barbastelle (1) Lesser horseshoe bat (5) Pipistrellus sp. (7) Leisler's bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		18/06/17	21:29	Common pipistrelle 39 minutes after sunset. Myotis sp. 71 minutes after sunset	Common pipistrelle Unknown Myotis sp. Serotine Leisler's bat Serotine/Nyctalus sp. Pipistrellus sp. Lesser horseshoe bat Brown long-eared bat Soprano pipistrelle	170	Common pipistrelle (87) Unknown (36) Myotis sp. (13) Serotine (5) Leisler's bat (2) Serotine/Nyctalus sp. (1) Pipistrellus sp. (23) Lesser horseshoe bat (1) Brown long-eared bat (1) Soprano pipistrelle (1)
		19/06/17	21:30	Common pipistrelle 39 minutes after sunset. Myotis sp. 65 minutes after sunset	Common pipistrelle Unknown Myotis sp. Soprano pipistrelle Leisler's bat Serotine Pipistrellus sp. Serotine/Nyctalus sp. Brown long-eared bat Noctule	137	Common pipistrelle (68) Unknown (28) Myotis sp. (14) Soprano pipistrelle (6) Leisler's bat (5) Serotine (5) Pipistrellus sp. (6) Serotine/Nyctalus sp. (3) Brown long-eared bat (1) Noctule (1)
	July	12/07/17	21:23	Myotis sp. 51 minutes after sunset.	Noctule Common pipistrelle Myotis sp. Serotine Serotine/Nyctalus sp. Unknown Pipistrellus sp. Brown long-eared bat	378	Noctule (1) Common pipistrelle (308) Myotis sp. (20) Serotine (3) Serotine/Nyctalus sp. (8) Unknown (27) Pipistrellus sp. (2) Brown long-eared bat (9)
		13/07/17	21:22	Noctule 12 minutes after sunset. Common pipistrelle 33 minutes after sunset. Brown long-eared bat 51 minutes after sunset. Myotis sp. 53 minutes after sunset.	Noctule Common pipistrelle Brown long-eared bat Myotis sp. Leisler's bat Unknown Serotine/Nyctalus sp. Soprano pipistrelle	292	Noctule (1) Common pipistrelle (209) Brown long-eared bat (2) Myotis sp. (15) Leisler's bat (3) Unknown (14) Serotine/Nyctalus sp. (3) Soprano pipistrelle (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Lesser horseshoe bat Pipistrellus sp.		Lesser horseshoe bat (1) Pipistrellus sp. (36)
		14/07/17	21:21	None recorded within the limit.	Common pipistrelle Myotis sp. Unknown Brown long-eared bat Pipistrellus sp. Soprano pipistrelle Serotine/Nyctalus sp.	162	Common pipistrelle (134) Myotis sp. (7) Unknown (8) Brown long-eared bat (7) Pipistrellus sp. (2) Soprano pipistrelle (1) Serotine/Nyctalus sp. (2)
		15/07/17	21:20	Myotis sp. 45 minutes after sunset.	Serotine/Nyctalus sp. Noctule Myotis sp. Pipistrellus sp. Soprano pipistrelle Common pipistrelle Serotine Unknown Brown long-eared bat Lesser horseshoe bat	111	Serotine/Nyctalus sp. (12) Noctule (3) Myotis sp. (19) Pipistrellus sp. (3) Soprano pipistrelle (8) Common pipistrelle (52) Serotine (4) Unknown (7) Brown long-eared bat (2) Lesser horseshoe bat (1)
		16/07/17	21:19	Myotis sp. 58 minutes after sunset	Soprano pipistrelle Leisler's bat Myotis sp. Serotine Unknown Common pipistrelle Brown long-eared bat Pipistrellus sp.	308	Soprano pipistrelle (11) Leisler's bat (6) Myotis sp. (17) Serotine (4) Unknown (6) Common pipistrelle (152) Brown long-eared bat (11) Pipistrellus sp. (16)
		18/07/17	21:17	Myotis sp. 53 minutes after sunset	Myotis sp. Common pipistrelle Serotine/Nyctalus sp. Soprano pipistrelle Leisler's bat Noctule Serotine Brown long-eared bat Unknown	155	Myotis sp. (7) Common pipistrelle (76) Serotine/Nyctalus sp. (8) Soprano pipistrelle (8) Leisler's bat (5) Noctule (6) Serotine (9) Brown long-eared bat (7) Unknown (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp.		Pipistrellus sp. (27)
	August	08/08/17	20:46	Common pipistrelle 28 minutes after sunset. Lesser horseshoe bat 34 minutes after sunset. Myotis sp. 53 minutes after sunset.	Common pipistrelle Lesser horseshoe bat Soprano pipistrelle Myotis sp. Pipistrellus sp. Unknown Serotine/Nyctalus sp. Noctule Serotine Leisler's bat Barbastelle Brown long-eared bat	111	Common pipistrelle (30) Lesser horseshoe bat (3) Soprano pipistrelle (2) Myotis sp. (34) Pipistrellus sp. (6) Unknown (11) Serotine/Nyctalus sp. (12) Noctule (1) Serotine (4) Leisler's bat (4) Barbastelle (3) Brown long-eared bat (1)
		09/08/17	20:44	Lesser horseshoe bat 26 minutes after sunset. Common pipistrelle 27 minutes after sunset. Myotis sp. 47 minutes after sunset.	Lesser horseshoe bat Common pipistrelle Serotine Serotine/Nyctalus sp. Myotis sp. Soprano pipistrelle Unknown Pipistrellus sp. Leisler's bat Barbastelle	360	Lesser horseshoe bat (2) Common pipistrelle (203) Serotine (7) Serotine/Nyctalus sp. (13) Myotis sp. (6) Soprano pipistrelle (6) Unknown (2) Pipistrellus sp. (104) Leisler's bat (13) Barbastelle (4)
		10/08/17	20:42	Common pipistrelle 26 minutes after sunset. Lesser horseshoe bat 36 minutes after sunset. Myotis sp. 44 minutes after sunset	Common pipistrelle Lesser horseshoe bat Soprano pipistrelle Myotis sp. Unknown Pipistrellus sp. Leisler's bat Serotine/Nyctalus sp. Brown long-eared bat	145	Common pipistrelle (87) Lesser horseshoe bat (11) Soprano pipistrelle (6) Myotis sp. (18) Unknown (7) Pipistrellus sp. (2) Leisler's bat (4) Serotine/Nyctalus sp. (6) Brown long-eared bat (4)
		11/08/17	20:40	Common pipistrelle 17 minutes after sunset. Myotis sp. 35 minutes after sunset.	Common pipistrelle Myotis sp. Serotine/Nyctalus sp. Pipistrellus sp.	79	Common pipistrelle (37) Myotis sp. (2) Serotine/Nyctalus sp. (3) Pipistrellus sp. (24)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Leisler's bat Soprano pipistrelle Unknown Brown long-eared bat		Leisler's bat (3) Soprano pipistrelle (2) Unknown (6) Brown long-eared bat (2)
		12/08/17	20:38	Common pipistrelle 31 minutes after sunset. Lesser horseshoe bat 37 minutes after sunset	Common pipistrelle Unknown Lesser horseshoe bat Serotine/Nyctalus sp. Soprano pipistrelle Serotine Myotis sp. Pipistrellus sp. Barbastelle Leisler's bat Brown long-eared bat	111	Common pipistrelle (30) Unknown (9) Lesser horseshoe bat (5) Serotine/Nyctalus sp. (21) Soprano pipistrelle (6) Serotine (4) Myotis sp. (14) Pipistrellus sp. (15) Barbastelle (2) Leisler's bat (2) Brown long-eared bat (3)
		13/08/17	20:37	Common pipistrelle 28 minutes after sunset. Lesser horseshoe bat 36 minutes after sunset. Myotis sp. 49 minutes after sunset. Brown long-eared bat 62 minutes after sunset.	Common pipistrelle Lesser horseshoe bat Unknown Myotis sp. Serotine Pipistrellus sp. Brown long-eared bat Soprano pipistrelle Serotine/Nyctalus sp. Leisler's bat	157	Common pipistrelle (59) Lesser horseshoe bat (1) Unknown (8) Myotis sp. (12) Serotine (7) Pipistrellus sp. (35) Brown long-eared bat (6) Soprano pipistrelle (5) Serotine/Nyctalus sp. (22) Leisler's bat (2)
		14/08/17	20:35	Common pipistrelle 18 minutes after sunset. Lesser horseshoe bat 29 minutes after sunset Myotis sp. 44 minutes after sunset. Brown long-eared bat 50 minutes after sunset	Noctule Common pipistrelle Lesser horseshoe bat Pipistrellus sp. Myotis sp. Leisler's bat Brown long-eared bat Serotine/Nyctalus sp. Serotine Unknown	259	Noctule (2) Common pipistrelle (72) Lesser horseshoe bat (3) Pipistrellus sp. (74) Myotis sp. (15) Leisler's bat (13) Brown long-eared bat (6) Serotine/Nyctalus sp. (52) Serotine (3) Unknown (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle Barbastelle		Soprano pipistrelle (4) Barbastelle (7)
	September	05/09/17	19:48	Soprano pipistrelle 37 minutes after sunset.	Unknown Soprano pipistrelle Common pipistrelle Serotine Brown long-eared bat Serotine/Nyctalus sp. Myotis sp. Leisler's bat	65	Unknown (3) Soprano pipistrelle (9) Common pipistrelle (11) Serotine (2) Brown long-eared bat (3) Serotine/Nyctalus sp. (3) Myotis sp. (33) Leisler's bat (1)
		06/09/17	19:46	Soprano pipistrelle 25 minutes after sunset. Lesser horseshoe bat 30 minutes after sunset. Common pipistrelle 33 minutes after sunset Myotis sp. 73 minutes after sunset	Unknown Soprano pipistrelle Lesser horseshoe bat Common pipistrelle Leisler's bat Myotis sp. Pipistrellus sp. Brown long-eared bat Serotine/Nyctalus sp. Serotine Noctule	66	Unknown (3) Soprano pipistrelle (2) Lesser horseshoe bat (2) Common pipistrelle (23) Leisler's bat (1) Myotis sp. (18) Pipistrellus sp. (3) Brown long-eared bat (5) Serotine/Nyctalus sp. (5) Serotine (3) Noctule (1)
		07/09/17	19:44	Common pipistrelle 25 minutes after sunset. Soprano pipistrelle 36 minutes after sunset Lesser horseshoe bat 49 minutes after sunset. Myotis sp. 53 minutes after sunset. Brown long-eared bat 55 minutes after sunset	Common pipistrelle Soprano pipistrelle Serotine Pipistrellus sp. Lesser horseshoe bat Myotis sp. Brown long-eared bat Serotine/Nyctalus sp. Unknown	84	Common pipistrelle (46) Soprano pipistrelle (1) Serotine (4) Pipistrellus sp. (6) Lesser horseshoe bat (1) Myotis sp. (13) Brown long-eared bat (1) Serotine/Nyctalus sp. (7) Unknown (5)
		08/09/17	19:42	Lesser horseshoe bat 28 minutes after sunset. Soprano pipistrelle 36 minutes after sunset	Lesser horseshoe bat Soprano pipistrelle Pipistrellus sp. Myotis sp. Common pipistrelle	38	Lesser horseshoe bat (6) Soprano pipistrelle (3) Pipistrellus sp. (6) Myotis sp. (9) Common pipistrelle (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 49 minutes after sunset.	Brown long-eared bat Serotine/Nyctalus sp. Barbastelle		Brown long-eared bat (2) Serotine/Nyctalus sp. (5) Barbastelle (1)
		09/09/17	19:39	Lesser horseshoe bat 29 minutes after sunset. Myotis sp. 53 minutes after sunset	Lesser horseshoe bat Unknown Myotis sp. Serotine/Nyctalus sp. Serotine Common pipistrelle Soprano pipistrelle Noctule Pipistrellus sp. Brown long-eared bat	100	Lesser horseshoe bat (4) Unknown (2) Myotis sp. (9) Serotine/Nyctalus sp. (12) Serotine (2) Common pipistrelle (59) Soprano pipistrelle (2) Noctule (2) Pipistrellus sp. (1) Brown long-eared bat (7)
		10/09/17	19:37		Common pipistrelle Serotine/Nyctalus sp. Myotis sp.	8	Common pipistrelle 5) Serotine/Nyctalus sp. (3) Myotis sp. (1)
		11/09/17	19:35	Soprano pipistrelle 36 minutes after sunset. Myotis sp. 54 minutes after sunset. Brown long-eared bat 57 minutes after sunset	Soprano pipistrelle Serotine/Nyctalus sp. Myotis sp. Brown long-eared bat Common pipistrelle Lesser horseshoe bat Barbastelle	47	Soprano pipistrelle (5) Serotine/Nyctalus sp. (11) Myotis sp. (18) Brown long-eared bat (3) Common pipistrelle (4) Lesser horseshoe bat (1) Barbastelle (5)
		12/09/17	19:33	None recorded within the limit.	Lesser horseshoe bat	1	Lesser horseshoe bat (1)
	October	03/10/17	18:45	Common pipistrelle 29 minutes after sunset. Brown long-eared bat 65 minutes after sunset	Common pipistrelle Serotine Serotine/Nyctalus sp. Brown long-eared bat Unknown Pipistrellus sp. Myotis sp.	47	Common pipistrelle (22) Serotine (6) Serotine/Nyctalus sp. (7) Brown long-eared bat (2) Unknown (1) Pipistrellus sp. (1) Myotis sp. (8)
		04/10/17	18:43	Soprano pipistrelle 38 minutes after sunset. Common pipistrelle 39 minutes after sunset.	Soprano pipistrelle Common pipistrelle Serotine/Nyctalus sp. Unknown Myotis sp.	39	Soprano pipistrelle (7) Common pipistrelle (24) Serotine/Nyctalus sp. (3) Unknown (4) Myotis sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Myotis sp. 66 minutes after sunset.			
		05/10/17	18:41	Soprano pipistrelle 30 minutes after sunset. Common pipistrelle 32 minutes after sunset. Barbastelle 47 minutes after sunset	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Barbastelle Unknown Serotine/Nyctalus sp. Serotine Leisler's bat Myotis sp. Brown long-eared bat	162	Soprano pipistrelle (3) Common pipistrelle (84) Pipistrellus sp. (2) Barbastelle (6) Unknown (3) Serotine/Nyctalus sp. (46) Serotine (2) Leisler's bat (2) Myotis sp. (12) Brown long-eared bat (2)
		06/10/17	18:38	Soprano pipistrelle 24 minutes after sunset. Common pipistrelle 31 minutes after sunset. Myotis sp. 49 minutes after sunset	Soprano pipistrelle Common pipistrelle Serotine Serotine/Nyctalus sp. Myotis sp. Leisler's bat Barbastelle Brown long-eared bat Unknown	76	Soprano pipistrelle (5) Common pipistrelle (14) Serotine (15) Serotine/Nyctalus sp. (30) Myotis sp. (1) Leisler's bat (6) Barbastelle (1) Brown long-eared bat (1) Unknown (1)
		07/10/17	18:36	Common pipistrelle 34 minutes after sunset. Myotis sp. 55 minutes after sunset	Common pipistrelle Pipistrellus sp. Serotine Myotis sp. Serotine/Nyctalus sp. Leisler's bat Soprano pipistrelle Brown long-eared bat Barbastelle Lesser horseshoe bat Unknown	134	Common pipistrelle (69) Pipistrellus sp. (4) Serotine (13) Myotis sp. (7) Serotine/Nyctalus sp. (27) Leisler's bat (4) Soprano pipistrelle (3) Brown long-eared bat (3) Barbastelle (2) Lesser horseshoe bat (1) Unknown (1)
		08/10/17	18:34	Common pipistrelle 33 minute after sunset. Myotis sp. 38 minutes after sunset	Serotine/Nyctalus sp. Common pipistrelle Myotis sp. Serotine	111	Serotine/Nyctalus sp. (29) Common pipistrelle (31) Myotis sp. (5) Serotine (23)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp. Unknown Soprano pipistrelle		Pipistrellus sp. (14) Unknown (7) Soprano pipistrelle (2)
		09/10/17	18:32	Common pipistrelle 34 minutes after sunset. Soprano pipistrelle 35 minutes after sunset	Common pipistrelle Soprano pipistrelle Leisler's bat Pipistrellus sp. Serotine Serotine/Nyctalus sp. Unknown Lesser horseshoe bat Myotis sp. Noctule	67	Common pipistrelle (4) Soprano pipistrelle (3) Leisler's bat (3) Pipistrellus sp. (3) Serotine (36) Serotine/Nyctalus sp. (11) Unknown (4) Lesser horseshoe bat (1) Myotis sp. (1) Noctule (1)
		10/10/17	18:30	None recorded within the limit.	Common pipistrelle Noctule Leisler's bat Serotine/Nyctalus sp. Unknown Pipistrellus sp. Serotine Soprano pipistrelle Myotis sp.	65	Common pipistrelle (19) Noctule (1) Leisler's bat (8) Serotine/Nyctalus sp. (16) Unknown (14) Pipistrellus sp. (3) Serotine (2) Soprano pipistrelle (1) Myotis sp. (1)
Online 2.2a	April	11/04/17	20:02	Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 22 minutes after sunset. Pipistrellus sp. recorded 35 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe Unknown sp.	41	Myotis sp. (1) Common pipistrelle (16) Soprano pipistrelle (14) Pipistrellus sp. (4) Lesser horseshoe (1) Unknown sp. (5)
		12/04/17	20:03	Myotis sp. recorded 36 minutes after sunset. Common pipistrelle recorded 25 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset.	Myotis sp. Brown long eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe Unknown sp.	480	Myotis sp. (6) Brown long eared bat (2) Common pipistrelle (274) Soprano pipistrelle (79) Pipistrellus sp. (103) Lesser horseshoe (1) Unknown sp. (15)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		13/04/17	20:05	Myotis sp. recorded 54 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Pipistrellus sp. recorded 30 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe Unknown sp.	40	Myotis sp. (4) Common pipistrelle (18) Soprano pipistrelle (2) Pipistrellus sp. (10) Lesser horseshoe (1) Unknown sp. (5)
		14/04/17	20:06	Myotis sp. recorded 37 minutes after sunset. Brown long eared bat recorded 35 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Brown long-eared bat Myotis sp. Unknown Lesser horseshoe bat	702	Soprano pipistrelle (71) Common pipistrelle (553) Pipistrellus sp. (50) Brown long-eared bat (8) Myotis sp. (3) Unknown (16) Lesser horseshoe bat (1)
		15/04/17	20:08	Soprano pipistrelle recorded 29 minutes after sunset. Myotis sp. recorded 65 minutes after sunset.	Soprano pipistrelle Common pipistrelle Pipistrellus sp. Unknown Myotis sp. Lesser horseshoe bat	23	Soprano pipistrelle (9) Common pipistrelle (6) Pipistrellus sp. (1) Unknown (3) Myotis sp. (3) Lesser horseshoe bat (1)
		16/04/17	20:09	Soprano pipistrelle recorded 14 minutes after sunset. Common pipistrelle recorded 17 minutes after sunset. Myotis sp. recorded 46 minutes after sunset. Brown long-eared bat recorded 58 minutes after sunset	Soprano pipistrelle Common pipistrelle Unknown Myotis sp. Pipistrellus sp. Brown long-eared bat Myotis sp./Brown long-eared bat	349	Soprano pipistrelle (39) Common pipistrelle (232) Unknown (24) Myotis sp. (12) Pipistrellus sp. (32) Brown long-eared bat (8) Myotis sp./Brown long-eared bat (2)
		17/04/17	20:11	Common pipistrelle recorded 29 minutes after sunset. Brown long-eared bat recorded 32 minutes after sunset. Myotis sp. recorded 47 minutes after sunset.	Unknown Pipistrellus sp. Common pipistrelle Brown long-eared bat Serotine Myotis sp. Serotine/Nyctalus	125	Unknown (34) Pipistrellus sp. (17) Common pipistrelle (21) Brown long-eared bat (8) Serotine (3) Myotis sp. (11) Serotine/Nyctalus (20)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Barbastelle Soprano pipistrelle Leisler's bat		Barbastelle (1) Soprano pipistrelle (9) Leisler's bat (1)
		18/04/17	20:13	Common pipistrelle recorded 33 minutes after sunset. Myotis sp. recorded 51 minutes after sunset.	Pipistrellus sp. Unknown Common pipistrelle Serotine/Nyctalus Myotis sp. Soprano pipistrelle	42	Pipistrellus sp. (7) Unknown (8) Common pipistrelle (17) Serotine/Nyctalus (5) Myotis sp. (4) Soprano pipistrelle (1)
	May	16/05/17	20:57	Soprano pipistrelle recorded 8 minutes before sunset. Common pipistrelle recorded 21 minutes after sunset. Myotis sp. recorded 36 minutes after sunset. Brown long-eared bat recorded 44 minutes after sunset.	Soprano pipistrelle Common pipistrelle Unknown Myotis sp. Brown long-eared bat Pipistrellus sp. Leisler's bat Serotine/Nyctalus Noctule Barbastelle	122	Soprano pipistrelle (55) Common pipistrelle (36) Unknown (11) Myotis sp. (8) Brown long-eared bat (2) Pipistrellus sp. (1) Leisler's bat (2) Serotine/Nyctalus (3) Noctule (1) Barbastelle (3)
		17/05/17	20:58	Soprano pipistrelle recorded 17 minutes before sunset. Barbastelle recorded 42 minutes after sunset. Myotis sp. recorded 46 minutes after sunset.	Soprano pipistrelle Unknown Leisler's bat Common pipistrelle Barbastelle Myotis sp. Serotine Serotine/Nyctalus Pipistrellus sp.	244	Soprano pipistrelle (146) Unknown (10) Leisler's bat (1) Common pipistrelle (73) Barbastelle (1) Myotis sp. (3) Serotine (1) Serotine/Nyctalus (2) Pipistrellus sp. (7)
		18/05/17	21:00	Soprano pipistrelle recorded 3 minutes after sunset. Common pipistrelle recorded 22 minutes after sunset. Myotis sp.	Soprano pipistrelle Common pipistrelle Myotis sp. Barbastelle Unknown Pipistrellus sp. Brown long-eared bat Lesser horseshoe bat	240	Soprano pipistrelle (103) Common pipistrelle (116) Myotis sp. (4) Barbastelle (4) Unknown (3) Pipistrellus sp. (8) Brown long-eared bat (1) Lesser horseshoe bat (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		19/05/17	21:01	Soprano pipistrelle recorded 7 minutes after sunset. Leisler's bat recorded 23 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Leisler's bat Common pipistrelle Brown long-eared bat Unknown Serotine Myotis sp. Serotine/Nyctalus	186	Soprano pipistrelle (34) Pipistrellus sp. (3) Leisler's bat (1) Common pipistrelle (138) Brown long-eared bat (1) Unknown (2) Serotine (4) Myotis sp. (2) Serotine/Nyctalus (1)
		20/05/17	21:03	Soprano pipistrelle recorded 8 minutes before sunset. Brown long-eared bat recorded 50 minutes after sunset. Myotis sp. recorded 55 minutes after sunset.	Soprano pipistrelle Serotine/Nyctalus Brown long-eared bat Common pipistrelle Serotine Myotis sp. Unknown Pipistrellus sp.	221	Soprano pipistrelle (102) Serotine/Nyctalus (2) Brown long-eared bat (3) Common pipistrelle (77) Serotine (2) Myotis sp. (10) Unknown (2) Pipistrellus sp. (23)
		21/05/17	21:04	Myotis sp. recorded 70 minutes after sunset. Soprano pipistrelle recorded 3 minutes before sunset. Common pipistrelle recorded 19 minutes after sunset. Brown long-eared bat recorded 56 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	591	Barbastelle (10) Serotine/Nyctalus (9) Serotine (1) Myotis sp. (15) Leisler's bat (3) Noctule (1) Brown long-eared bat (5) Common pipistrelle (307) Soprano pipistrelle (216) Pipistrellus sp. (9) Unknown (15)
		22/05/17	21:05	Myotis sp. recorded 63 minutes after sunset. Brown long-eared bat recorded 64 minutes after sunset. Common pipistrelle recorded 17 minutes after sunset. Soprano pipistrelle recorded 22 minutes before sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle	480	Barbastelle (3) Serotine/Nyctalus (6) Myotis sp. (32) Leisler's bat (6) Noctule (1) Brown long-eared bat (4) Common pipistrelle (253) Soprano pipistrelle (139)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Pipistrellus sp. Unknown		Pipistrellus sp. (22) Unknown (14)
	June	13/06/17	21:27	Myotis sp. recorded 47 minutes after sunset. Common pipistrelle recorded 22 minutes after sunset. Soprano pipistrelle recorded 17 minutes before sunset.	Serotine/Nyctalus Serotine Myotis sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	321	Serotine/Nyctalus (15) Serotine (1) Myotis sp. (63) Brown long-eared bat (8) Common pipistrelle (139) Soprano pipistrelle (74) Pipistrellus sp. (12) Unknown (9)
		14/06/17	21:28	Myotis sp. recorded 32 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 18 minutes before sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	88	Serotine/Nyctalus (2) Myotis sp. (56) Common pipistrelle (12) Soprano pipistrelle (12) Pipistrellus sp. (1) Unknown (5)
		15/06/17	21:28	No bats recorded	No bats recorded	0	No bats recorded
		16/06/17	21:29	No bats recorded	No bats recorded	0	No bats recorded
		17/06/17	21:29	No bats recorded	No bats recorded	0	No bats recorded
		18/06/17	21:29	No bats recorded	No bats recorded	0	No bats recorded
		19/06/17	21:30	No bats recorded	No bats recorded	0	No bats recorded
	July	12/07/17	21:23	Myotis sp. recorded 28 minutes after sunset. Common pipistrelle recorded 25 minutes after sunset. Soprano pipistrelle recorded 6 minutes before sunset.	Serotine/Nyctalus Myotis sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	554	Serotine/Nyctalus (3) Myotis sp. (141) Brown long-eared bat (2) Common pipistrelle (365) Soprano pipistrelle (24) Pipistrellus sp. (8) Unknown (11)
		13/07/2107	21:22	Myotis sp. recorded 24 minutes after sunset. Common pipistrelle recorded 19 minutes after sunset. Soprano pipistrelle recorded 1 minute before sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle	530	Barbastelle (1) Serotine/Nyctalus (1) Myotis sp. (166) Leisler's bat (3) Noctule (1) Brown long-eared bat (1) Common pipistrelle (341)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Soprano pipistrelle Pipistrellus sp. Unknown		Soprano pipistrelle (23) Pipistrellus sp. (6) Unknown (11)
		14/07/17	21:21	Myotis recorded 34 minutes after sunset. Common pipistrelle recorded 22 minutes after sunset. Soprano pipistrelle recorded 19 minutes before sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	545	Serotine/Nyctalus (1) Myotis sp. (142) Common pipistrelle (341) Soprano pipistrelle (19) Pipistrellus sp. (5) Unknown (13)
		15/07/17	21:20	Myotis sp. recorded 39 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Soprano pipistrelle recorded 14 minutes after sunset.	Serotine/Nyctalus Myotis sp. Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	296	Serotine/Nyctalus (1) Myotis sp. (117) Noctule (1) Brown long-eared bat (1) Common pipistrelle (139) Soprano pipistrelle (16) Pipistrellus sp. (5) Unknown (16)
		16/07/17	21:19	Myotis sp. recorded 13 minutes after sunset. Common pipistrelle recorded 20 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	338	Serotine/Nyctalus (2) Myotis sp. (166) Leisler's bat (1) Common pipistrelle (131) Soprano pipistrelle (23) Pipistrellus sp. (2) Unknown (12)
		17/07/17	21:18	Myotis sp. recorded 29 minutes after sunset. Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	248	Serotine/Nyctalus (13) Myotis sp. (155) Leisler's bat (1) Noctule (1) Common pipistrelle (50) Soprano pipistrelle (17) Pipistrellus sp. (1) Unknown (7)
		18/07/17	21:17	Myotis sp. recorded 29 minutes after sunset. Brown long-eared bat recorded 44 minutes after sunset.	Serotine/Nyctalus Myotis sp. Brown long-eared bat Common pipistrelle	184	Serotine/Nyctalus (4) Myotis sp. (112) Brown long-eared bat (4) Common pipistrelle (50)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 18 minutes after sunset. Soprano pipistrelle recorded 35 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Unknown		Soprano pipistrelle 5) Pipistrellus sp. (1) Unknown (8)
		19/07/17	21:16	Myotis sp. recorded 30 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle recorded 23 minutes after sunset.	Serotine/Nyctalus Myotis sp. Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	355	Serotine/Nyctalus (1) Myotis sp. (100) Noctule (1) Brown long-eared bat (1) Common pipistrelle (241) Soprano pipistrelle (7) Pipistrellus sp. (2) Unknown (3)
	August	08/08/17	20:46	Myotis sp. recorded 33 minutes after sunset. Brown long-eared bat recorded 37 minutes after sunset. Common pipistrelle recorded 21 minutes after sunset. Soprano pipistrelle recorded 20 minutes before sunset.	Serotine/Nyctalus Myotis sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	131	Serotine/Nyctalus (1) Myotis sp. (44) Brown long-eared bat (11) Common pipistrelle (47) Soprano pipistrelle (8) Pipistrellus sp. (3) Unknown (17)
		09/08/17	20:44	Myotis sp. recorded 29 minutes after sunset. Common pipistrelle recorded 18 minutes after sunset. Soprano pipistrelle recorded 23 minutes before sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	185	Serotine/Nyctalus (10) Myotis sp. (68) Common pipistrelle (25) Soprano pipistrelle (68) Pipistrellus sp. (1) Unknown (13)
		10/08/17	20:42	Myotis sp. recorded 20 minutes after sunset. Common pipistrelle recorded 19 minutes after sunset. Soprano pipistrelle recorded 2 minutes after sunset.	Serotine/Nyctalus Myotis sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	271	Serotine/Nyctalus (1) Myotis sp. (60) Brown long-eared bat (2) Common pipistrelle (191) Soprano pipistrelle (9) Pipistrellus sp. (2) Unknown (5)
		11/08/17	20:40	Myotis sp. recorded 25 minutes after sunset.	Serotine/Nyctalus Myotis sp. Brown long-eared bat	256	Serotine/Nyctalus (15) Myotis sp. (25) Brown long-eared bat (18)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Brown long-eared bat recorded 34 minutes after sunset. Common pipistrelle recorded 12 minutes after sunset. Soprano pipistrelle recorded 11 minutes before sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (76) Soprano pipistrelle (101) Pipistrellus sp. (7) Unknown (14)
		12/08/17	20:38	Myotis sp. recorded 23 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 16 minutes before sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	297	Barbastelle (2) Serotine/Nyctalus (4) Myotis sp. (140) Common pipistrelle (109) Soprano pipistrelle (30) Pipistrellus sp. (2) Unknown (10)
		13/08/17	20:37	Myotis sp. recorded 27 minutes after sunset. Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 21 minutes before sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	407	Serotine/Nyctalus (3) Myotis sp. (83) Common pipistrelle (161) Soprano pipistrelle (143) Pipistrellus sp. (6) Unknown (11)
		14/08/17	20:35	Myotis sp. recorded 23 minutes after sunset. Common pipistrelle recorded 13 minutes after sunset. Soprano pipistrelle recorded 24 minutes before sunset. Lesser horseshoe bat recorded 26 minutes after sunrise.	Serotine/Nyctalus Myotis sp. Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	272	Serotine/Nyctalus (7) Myotis sp. (31) Noctule (1) Common pipistrelle (79) Soprano pipistrelle (130) Pipistrellus sp. (6) Lesser horseshoe bat (1) Unknown (16)
	October	03/10/17	18:45	Myotis sp. recorded 53 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Soprano pipistrelle recorded 28 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	68	Myotis sp. (13) Common pipistrelle (36) Soprano pipistrelle (12) Pipistrellus sp. (6) Unknown (7)
		04/10/17	18:43	Soprano pipistrelle recorded 20 minutes after sunset.	Barbastelle Serotine/Nyctalus Myotis sp.	102	Barbastelle (1) Serotine/Nyctalus (1) Myotis sp. (18)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (52) Soprano pipistrelle (12) Pipistrellus sp. (8) Unknown (10)
		05/10/17	18:41	Myotis sp. recorded 55 minutes after sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	85	Serotine/Nyctalus (12) Myotis sp. (12) Common pipistrelle (25) Soprano pipistrelle (19) Pipistrellus sp. (1) Unknown (16)
		06/10/17	18:38	Myotis sp. recorded 41 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	187	Myotis sp. (45) Common pipistrelle (131) Soprano pipistrelle (4) Pipistrellus sp. (4) Unknown (3)
		07/10/17	18:36	Myotis sp. recorded 38 minutes after sunset.	Serotine/Nyctalus Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	77	Serotine/Nyctalus (1) Myotis sp. (33) Common pipistrelle (29) Soprano pipistrelle (1) Pipistrellus sp. (2) Unknown (11)
		08/10/17	18:34	Myotis sp. recorded 46 minutes after sunset.	Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	103	Myotis sp. (25) Common pipistrelle (39) Soprano pipistrelle (22) Pipistrellus sp. (1) Unknown (16)
		09/10/17	18:32	Myotis sp. recorded 44 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	73	Myotis sp. (19) Common pipistrelle (25) Soprano pipistrelle 17) Pipistrellus sp. (2) Unknown (10)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		10/10/17	18:30	Myotis sp. recorded 50 minutes after sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	123	Myotis sp. (2) Common pipistrelle (85) Soprano pipistrelle (12) Pipistrellus sp. (11) Unknown (13)
Online 2.2b	June	13/06/17	21:27	Myotis sp. recorded 64 minutes after sunset. Brown long eared bat recorded 59 minutes after sunset. Common pipistrelle recorded 30 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	190	Serotine/Nyctalus (7) Serotine (36) Myotis sp. (6) Leisler's bat (2) Noctule (3) Brown long-eared bat (3) Common pipistrelle (97) Soprano pipistrelle (17) Pipistrellus sp. (6) Unknown (13)
		14/06/17	21:28	Myotis sp. recorded 53 minutes after sunset. Noctule recorded 5 minutes after sunset. Common pipistrelle recorded 29 minutes after sunset. Soprano pipistrelle recorded 26 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	224	Barbastelle (1) Serotine/Nyctalus (4) Serotine (9) Myotis sp. (12) Leisler's bat (3) Noctule (11) Brown long-eared bat (1) Common pipistrelle (170) Soprano pipistrelle (5) Pipistrellus sp. (3) Unknown (5)
		15/06/17	21:28	Myotis sp. recorded 60 minutes after sunset. Brown long-eared bat recorded 68 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Brown long-eared bat	223	Serotine/Nyctalus (1) Myotis sp. (7) Leisler's bat (2) Brown long-eared bat (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset.	Common pipistrelle Soprano pipistrelle Lesser horseshoe bat Unknown		Common pipistrelle (137) Soprano pipistrelle (65) Lesser horseshoe bat (1) Unknown (8)
		16/06/17	21:29	Myotis sp. recorded 58 minutes after sunset. Brown long-eared bat recorded 65 minutes after sunset. Common pipistrelle recorded 32 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	362	Serotine/Nyctalus (1) Serotine (1) Myotis sp. (5) Noctule (3) Brown long-eared bat (3) Common pipistrelle (281) Soprano pipistrelle (53) Pipistrellus sp. (2) Lesser horseshoe bat (1) Unknown (12)
		17/06/17	21:29	Brown long eared bat recorded 70 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset. Lesser horseshoe bat recorded 52 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	261	Serotine/Nyctalus (2) Serotine (6) Myotis sp. (7) Leisler's bat (1) Noctule (3) Brown long-eared bat (7) Common pipistrelle (217) Soprano pipistrelle (9) Pipistrellus sp. (3) Lesser horseshoe bat (2) Unknown (6)
		18/06/17	21:29	Myotis sp. recorded 60 minutes after sunset. Brown long-eared bat recorded 63 minutes after sunset. Common pipistrelle recorded 35 minutes after sunset. Lesser horseshoe bat recorded 51 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe Unknown	206	Serotine/Nyctalus (5) Myotis sp. (5) Leisler's bat (5) Noctule (2) Brown long-eared bat (2) Common pipistrelle (173) Soprano pipistrelle (4) Pipistrellus sp. (1) Lesser horseshoe (1) Unknown (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		19/06/17	21:30	Myotis sp. recorded 43 minutes after sunset. Common pipistrelle recorded 27 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	164	Serotine/Nyctalus (7) Myotis sp. (9) Leisler's bat (5) Noctule (4) Common pipistrelle (131) Soprano pipistrelle (1) Unknown (7)
	July	25/07/17	21:08	Common pipistrelle recorded 37 minutes after sunset.	Serotine/Nyctalus Serotine Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	35	Serotine/Nyctalus (11) Serotine (1) Common pipistrelle (14) Soprano pipistrelle (1) Pipistrellus sp. (1) Unknown (7)
		26/07/17	21:07	Common pipistrelle recorded 25 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	20	Common pipistrelle (9) Soprano pipistrelle (1) Pipistrellus sp. (1) Unknown (9)
		27/07/17	21:06	Common pipistrelle recorded 26 minutes after sunset.	Serotine/Nyctalus Common pipistrelle Unknown	16	Serotine/Nyctalus (5) Common pipistrelle (9) Unknown (2)
		28/07/17	21:05	None	Serotine/Nyctalus Common pipistrelle Unknown	20	Serotine/Nyctalus (4) Common pipistrelle (11) Unknown (5)
		29/07/17	21:04	Common pipistrelle recorded 26 minutes after sunset.	Serotine/Nyctalus Leisler's bat Common pipistrelle Soprano pipistrelle Unknown	80	Serotine/Nyctalus (4) Leisler's bat (1) Common pipistrelle (4) Soprano pipistrelle (63) Unknown (8)
		30/07/17	21:03	Common pipistrelle recorded 23 minutes after sunset.	Serotine/Nyctalus Common pipistrelle Unknown	16	Serotine/Nyctalus (8) Common pipistrelle (5) Unknown (3)
		31/07/17	21:02	Common pipistrelle recorded 31 minutes after sunset.	Serotine/Nyctalus Common pipistrelle Lesser horseshoe Unknown	12	Serotine/Nyctalus (5) Common pipistrelle (4) Lesser horseshoe (1) Unknown (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	August	08/08/17	20:46	Common pipistrelle recorded 30 minutes after sunset. Soprano pipistrelle recorded 22 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	123	Serotine/Nyctalus (5) Myotis sp. (2) Leisler's bat (2) Noctule (1) Common pipistrelle (55) Soprano pipistrelle (52) Unknown (6)
		09/08/17	20:44	Common pipistrelle recorded 19 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	470	Serotine/Nyctalus (4) Myotis sp. (7) Leisler's bat (4) Common pipistrelle (381) Soprano pipistrelle (43) Pipistrellus sp. (11) Unknown (20)
		10/08/17	20:42	Common pipistrelle recorded 23 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	140	Serotine/Nyctalus (1) Serotine (4) Myotis sp. (7) Leisler's bat (4) Common pipistrelle (69) Soprano pipistrelle (37) Pipistrellus sp. (5) Unknown (13)
		11/08/17	20:40	Soprano pipistrelle recorded 13 minutes after sunset.	Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	56	Serotine (4) Myotis sp. (1) Leisler's bat (5) Noctule (1) Common pipistrelle (20) Soprano pipistrelle (23) Unknown (2)
		12/08/17	20:38	Myotis sp. recorded 47 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset.	Serotine Serotine/Nyctalus Myotis sp. Leisler's bat Noctule	71	Serotine/Nyctalus (2) Serotine (2) Myotis sp. (5) Leisler's bat (6) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 26 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (24) Soprano pipistrelle (22) Pipistrellus sp. (2) Unknown (5)
		13/08/17	20:37	Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 22 minutes after sunset.	Serotine/Nyctalus Serotine Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	70	Serotine/Nyctalus (3) Serotine (1) Leisler's bat (2) Noctule (4) Common pipistrelle (33) Soprano pipistrelle (25) Unknown (2)
		14/08/17	20:35	Common pipistrelle recorded 16 minutes after sunset. Soprano pipistrelle recorded 22 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	77	Serotine/Nyctalus (6) Serotine (2) Myotis sp. (7) Leisler's bat (4) Noctule (2) Common pipistrelle (25) Soprano pipistrelle (25) Pipistrellus sp. (3) Unknown (3)
	September	05/09/17	19:48	Common pipistrelle recorded 25 minutes after sunset. Soprano pipistrelle recorded 30 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	383	Serotine/Nyctalus (3) Myotis sp. (1) Leisler's bat (4) Common pipistrelle (363) Soprano pipistrelle (10) Pipistrellus sp. (1) Unknown (1)
		06/09/17	19:46	Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle	63	Serotine/Nyctalus (15) Serotine (1) Myotis sp. (2) Leisler's bat (4) Noctule (1) Common pipistrelle (36) Soprano pipistrelle (4)
		07/09/17	19:44	Common pipistrelle recorded 25 minutes after sunset.	Serotine/Nyctalus Serotine	51	Serotine/Nyctalus (13) Serotine (2)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 25 minutes after sunset.	Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Unknown		Myotis sp. (3) Leisler's bat (12) Common pipistrelle (16) Soprano pipistrelle (1) Unknown (4)
		08/09/17	19:42	Brown long-eared bat recorded 63 minutes after sunset. Common pipistrelle recorded 26 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset.	Serotine/Nyctalus Serotine Leisler's bat Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp.	143	Serotine/Nyctalus (7) Serotine (4) Leisler's bat (4) Brown long-eared bat (1) Common pipistrelle (124) Soprano pipistrelle (2) Pipistrellus sp. (1)
		09/09/17	19:39	Myotis sp. recorded 62 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	97	Serotine/Nyctalus (7) Myotis sp. (8) Leisler's bat (2) Noctule (1) Common pipistrelle (74) Soprano pipistrelle (1) Pipistrellus sp. (2) Unknown (2)
		10/09/17	19:37	Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Serotine/Nyctalus Brown long-eared bat Common pipistrelle Soprano pipistrelle Unknown	32	Serotine/Nyctalus (1) Brown long eared bat (13) Common pipistrelle (16) Soprano pipistrelle (1) Unknown (1)
		11/09/17	19:35	Common pipistrelle recorded 28 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Brown long-eared bat Common pipistrelle Soprano pipistrelle Unknown	132	Serotine/Nyctalus (6) Serotine (32) Myotis sp. (12) Leisler's bat (16) Brown long eared bat (2) Common pipistrelle (62) Soprano pipistrelle (1) Unknown (1)
Online 2.2c	April	12/04/17	20:03	Common pipistrelle recorded 36 minutes after sunset.	Serotine/Nyctalus Myotis sp. Noctule	184	Serotine/Nyctalus (2) Myotis sp. (1) Noctule (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 25 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (74) Soprano pipistrelle (97) Pipistrellus sp. (7) Unknown (2)
		13/04/17	20:05	Soprano pipistrelle recorded 32 minutes after sunset.	Myotis sp. Soprano pipistrelle	13	Myotis sp. (1) Soprano pipistrelle (12)
		14/04/17	20:06	Barbastelle recorded 43 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	63	Barbastelle (1) Serotine/Nyctalus (8) Serotine (24) Noctule (2) Brown long eared bat (3) Common pipistrelle (13) Soprano pipistrelle (5) Pipistrellus sp. (3) Lesser horseshoe bat (2) Unknown (1)
		15/04/17	20:08	Myotis sp. recorded 67 minutes after sunset. Soprano pipistrelle recorded 40 minutes after sunset.	Myotis sp. Common pipistrelle Soprano pipistrelle	18	Myotis sp. (2) Common pipistrelle (9) Soprano pipistrelle (7)
		16/04/17	20:09	Brown long-eared bat recorded 28 minutes after sunset. Common pipistrelle recorded 34 minutes after sunset. Soprano pipistrelle recorded 15 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	276	Barbastelle (2) Serotine/Nyctalus (5) Serotine (20) Myotis sp. (1) Brown long eared bat (7) Common pipistrelle (174) Soprano pipistrelle (27) Pipistrellus sp. (13) Lesser horseshoe bat (1) Unknown (26)
		17/04/17	20:11	Myotis sp. recorded 52 minutes after sunset. Brown long-eared bat recorded 46 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Noctule Brown long-eared bat Common pipistrelle	179	Serotine/Nyctalus (7) Serotine (39) Myotis sp. (4) Noctule (17) Brown long eared bat (9) Common pipistrelle (10)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 24 minutes after sunset. Lesser horseshoe bat recorded 57 minutes after sunset.	Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown		Soprano pipistrelle (79) Pipistrellus sp. (2) Lesser horseshoe bat (2) Unknown (10)
		18/04/17	20:13	Myotis sp. recorded 66 minutes after sunset.	Serotine Myotis sp. Brown long-eared bat Unknown	7	Serotine (2) Myotis sp. (3) Brown long eared bat (1) Unknown (1)
	May	16/05/17	20:57	Noctule recorded 12 minutes after sunset. Brown long-eared bat recorded 47 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Soprano pipistrelle Unknown	39	Serotine/Nyctalus (2) Serotine (1) Myotis sp. (1) Leisler's bat (10) Noctule (8) Brown long eared bat (4) Soprano pipistrelle (11) Unknown (2)
		17/05/17	20:58	Myotis sp. recorded 62 minutes after sunset. Leisler's bat recorded 17 minutes after sunset. Common pipistrelle recorded 39 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp.	156	Barbastelle (2) Serotine/Nyctalus (12) Serotine (1) Myotis sp. (6) Leisler's bat (9) Noctule (2) Brown long eared bat (2) Common pipistrelle (9) Soprano pipistrelle (112) Pipistrellus sp. (1)
		18/05/17	21:00	Barbastelle recorded 50 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset. Soprano pipistrelle recorded 23 minutes after sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	270	Barbastelle (3) Serotine/Nyctalus (1) Myotis sp. (2) Leisler's bat (3) Noctule (6) Common pipistrelle (14) Soprano pipistrelle (233) Pipistrellus sp. (2) Unknown (6)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		19/05/17	21:01	Myotis sp. recorded 61 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Noctule Common pipistrelle Soprano pipistrelle	7	Serotine/Nyctalus (2) Serotine (1) Myotis sp. (1) Noctule (1) Common pipistrelle (1) Soprano pipistrelle (1)
		20/05/17	21:03	Soprano pipistrelle recorded 25 minutes after sunset.	Serotine/Nyctalus Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	26	Serotine/Nyctalus (1) Leisler's bat (3) Noctule (2) Brown long eared bat (2) Common pipistrelle (1) Soprano pipistrelle (14) Pipistrellus sp. (2) Unknown (1)
		21/05/17	21:04	Brown long-eared bat recorded 67 minutes after sunset. Soprano pipistrelle recorded 24 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	216	Barbastelle (2) Serotine/Nyctalus (10) Serotine (1) Myotis sp. (8) Leisler's bat (37) Noctule (10) Brown long eared bat (2) Common pipistrelle (22) Soprano pipistrelle (119) Pipistrellus sp. (1) Lesser horseshoe bat (2) Unknown (2)
		22/05/17	21:05	Myotis sp. recorded 54 minutes after sunset. Common pipistrelle recorded 37 minutes after sunset. Soprano pipistrelle recorded 18 minutes after sunset. Lesser horseshoe bat recorded 52 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	402	Serotine/Nyctalus (7) Myotis sp. (8) Leisler's (36) Noctule (15) Brown long eared bat (2) Common pipistrelle (35) Soprano pipistrelle (280) Pipistrellus sp. (9) Lesser horseshoe bat (2) Unknown (18)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
	June	13/06/17	21:27	Myotis sp. recorded 62 minutes after sunset. Soprano pipistrelle recorded 15 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	326	Barbastelle (1) Serotine/Nyctalus (23) Serotine (27) Myotis sp. (9) Leisler's bat (10) Noctule (32) Brown long eared bat (2) Common pipistrelle (45) Soprano pipistrelle (165) Pipistrellus sp. (5) Unknown (9)
		14/06/17	21:28	No bats recorded	No bats recorded	0	No bats recorded
		15/06/17	21:28	Soprano pipistrelle recorded 37 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Unknown	58	Serotine/Nyctalus (8) Serotine (1) Myotis sp. (3) Leisler's bat (3) Common pipistrelle (6) Soprano pipistrelle (34) Unknown (3)
		16/06/17	21:29	Myotis sp. recorded 61 minutes after sunset. Common pipistrelle recorded 63 minutes after sunset. Soprano pipistrelle recorded 23 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	185	Serotine/Nyctalus (14) Serotine (2) Myotis sp. (7) Leisler's bat (8) Noctule (13) Common pipistrelle (10) Soprano pipistrelle (118) Unknown (13)
		17/06/17	21:29	Myotis sp. recorded 68 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	233	Serotine/Nyctalus (34) Serotine (19) Myotis sp. (6) Leisler's bat (11) Noctule (25) Common pipistrelle (17) Soprano pipistrelle (112) Pipistrellus sp. (1) Unknown (8)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
		18/06/17	21:29	Myotis sp. recorded 56 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	286	Serotine/Nyctalus (7) Serotine (1) Myotis sp. (9) Leisler's bat (3) Noctule (11) Common pipistrelle (10) Soprano pipistrelle (235) Pipistrellus sp. (2) Unknown (8)
		19/06/17	21:30	Myotis sp. recorded 45 minutes after sunset. Soprano pipistrelle recorded 27 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	255	Serotine/Nyctalus (11) Serotine (3) Myotis sp. (4) Leisler's bat (23) Noctule (6) Common pipistrelle (19) Soprano pipistrelle (180) Pipistrellus sp. (1) Unknown (8)
	July	12/07/17	21:23	Myotis sp. recorded 39 minutes after sunset. Brown long eared bat recorded 65 minutes after sunset. Common pipistrelle recorded 36 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	138	Serotine/Nyctalus (1) Serotine (2) Myotis sp. (13) Leisler's bat (1) Noctule (1) Brown long eared bat (1) Common pipistrelle (34) Soprano pipistrelle (80) Pipistrellus sp. (3) Unknown (2)
		13/07/2107	21:22	Myotis sp. recorded 58 minutes after sunset. Soprano pipistrelle recorded 29 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp.	82	Serotine/Nyctalus (4) Serotine (1) Myotis sp. (4) Leisler's bat (4) Brown long eared bat (1) Common pipistrelle (21) Soprano pipistrelle (35) Pipistrellus sp. (1)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Unknown		Unknown (11)
		14/07/17	21:21	Myotis sp. recorded 58 minutes after sunset. Brown long-eared bat recorded 69 minutes after sunset. Soprano pipistrelle recorded 20 minutes after sunset.	Serotine/Nyctalus Myotis sp. Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	58	Serotine/Nyctalus (5) Myotis sp. (6) Noctule (2) Brown long eared bat (1) Common pipistrelle (14) Soprano pipistrelle (19) Pipistrellus sp. (1) Unknown (10)
		15/07/17	21:20	Myotis sp. recorded 64 minutes after sunset. Common pipistrelle recorded 33 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	87	Serotine/Nyctalus (1) Serotine (1) Myotis sp. (1) Leisler's bat (3) Noctule (1) Common pipistrelle (28) Soprano pipistrelle (44) Unknown (8)
		16/07/17	21:19	Myotis sp. recorded 64 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	81	Serotine/Nyctalus (7) Myotis sp. (10) Leisler's bat (3) Noctule (11) Common pipistrelle (19) Soprano pipistrelle (21) Pipistrellus sp. (1) Unknown (9)
		17/07/17	21:18	Myotis sp. recorded 47 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	169	Serotine/Nyctalus (13) Serotine (1) Myotis sp. (11) Leisler's bat (10) Noctule (9) Common pipistrelle (28) Soprano pipistrelle (91) Pipistrellus sp. (2) Unknown (4)
		18/07/17	21:17	Myotis sp. recorded 61 minutes after sunset.	Serotine/Nyctalus Serotine	150	Serotine/Nyctalus (33) Serotine (9)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 40 minutes after sunset.	Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Myotis sp. (12) Leisler's bat (15) Noctule (3) Brown long eared bat (2) Common pipistrelle (32) Soprano pipistrelle (42) Pipistrellus sp. (1) Unknown (1)
		19/07/17	21:16	Myotis sp. recorded 56 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Unknown	203	Serotine/Nyctalus (2) Myotis sp. (9) Leisler's bat (9) Noctule (10) Brown long eared bat (5) Common pipistrelle (7) Soprano pipistrelle (32) Unknown (129)
	August	08/08/17	20:46	Common pipistrelle recorded 35 minutes after sunset. Soprano pipistrelle recorded 25 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Common pipistrelle Soprano pipistrelle Unknown	76	Serotine/Nyctalus (5) Serotine (4) Myotis sp. (1) Leisler's bat (9) Common pipistrelle (6) Soprano pipistrelle (43) Unknown (7)
		09/08/17	20:44	Noctule recorded 8 minutes after sunset. Common pipistrelle recorded 31 minutes after sunset. Soprano pipistrelle recorded 23 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long-eared bat Common pipistrelle Soprano pipistrelle Unknown	94	Serotine/Nyctalus (12) Serotine (1) Myotis sp. (3) Leisler's bat (11) Noctule (12) Brown long eared bat (2) Common pipistrelle (21) Soprano pipistrelle (24) Unknown (20)
		10/08/17	20:42	Myotis sp. recorded 64 minutes after sunset. Leisler's bat recorded 20 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat	53	Serotine/Nyctalus (10) Serotine (1) Myotis sp. (1) Leisler's bat (4)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Common pipistrelle recorded 30 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (13) Soprano pipistrelle (20) Pipistrellus sp. (1) Unknown (3)
		11/08/17	20:40	Noctule recorded 6 minutes after sunset. Common pipistrelle recorded 24 minutes after sunset. Soprano pipistrelle recorded 19 minutes after sunset.	Serotine/Nyctalus Serotine Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	31	Serotine/Nyctalus (6) Serotine (1) Leisler's bat (12) Noctule (4) Common pipistrelle (3) Soprano pipistrelle (2) Unknown (2)
		12/08/17	20:38	Common pipistrelle recorded 26 minutes after sunset. Soprano pipistrelle recorded 32 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	87	Barbastelle (3) Serotine/Nyctalus (6) Serotine (4) Myotis sp. (11) Leisler's bat (20) Noctule (2) Common pipistrelle (15) Soprano pipistrelle (23) Pipistrellus sp. (1) Unknown (2)
		13/08/17	20:37	None recorded within limit.	Barbastelle Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	85	Barbastelle (3) Serotine/Nyctalus (22) Serotine (3) Myotis sp. (3) Leisler's bat (29) Noctule (3) Common pipistrelle (16) Soprano pipistrelle (3) Pipistrellus sp. (2) Unknown (1)
		14/08/17	20:35	Myotis sp. recorded 33 minutes after sunset. Common pipistrelle recorded 28 minutes after sunset.	Barbastelle Serotine/Nyctalus Myotis sp. Leisler's bat Noctule	119	Barbastelle (6) Serotine/Nyctalus (16) Myotis sp. (6) Leisler's bat (30) Noctule (3)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
				Soprano pipistrelle recorded 21 minutes after sunset.	Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Common pipistrelle (15) Soprano pipistrelle (40) Pipistrellus sp. (1) Unknown (2)
	October	04/10/17	18:43	Soprano pipistrelle recorded 20 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Lesser horseshoe bat Unknown	149	Serotine/Nyctalus (8) Serotine (1) Myotis sp. (2) Leisler's bat (3) Noctule (2) Common pipistrelle (1) Soprano pipistrelle (59) Lesser horseshoe bat (3) Unknown (70)
		05/10/17	18:41	Soprano pipistrelle recorded 21 minutes after sunset. Lesser horseshoe bat recorded 18 minutes before sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Lesser horseshoe bat Unknown	294	Serotine/Nyctalus (7) Serotine (1) Myotis sp. (4) Leisler's bat (2) Noctule (1) Common pipistrelle (3) Soprano pipistrelle (270) Pipistrellus sp. (3) Lesser horseshoe bat (1) Unknown (2)
		06/10/17	18:38	Noctule recorded 8 minutes after sunset. Soprano pipistrelle recorded 21 minutes after sunset.	Serotine/Nyctalus Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	210	Serotine/Nyctalus (6) Myotis sp. (4) Leisler's bat (5) Noctule (3) Common pipistrelle (3) Soprano pipistrelle (175) Pipistrellus sp. (3) Lesser horseshoe bat (2) Unknown (9)
		07/10/17	18:36	Soprano pipistrelle recorded 23 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat	243	Serotine/Nyctalus (5) Serotine (22) Myotis sp. (5) Leisler's bat (26)

Static	Month	Date	Sunset	First recorded activity after dusk	Species recorded	Calls per night	Calls per species
					Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown		Noctule (4) Brown long eared bat (1) Common pipistrelle (26) Soprano pipistrelle (138) Pipistrellus sp. (12) Unknown (24)
		08/10/17	18:34	Myotis sp. recorded 66 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Brown long eared bat Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	224	Serotine/Nyctalus (7) Serotine (1) Myotis sp. (12) Leisler's bat (64) Noctule (15) Brown long eared bat (2) Common pipistrelle (2) Soprano pipistrelle (114) Pipistrellus sp. (1) Unknown (6)
		09/10/17	18:32	Myotis sp. recorded 54 minutes after sunset. Soprano pipistrelle recorded 31 minutes after sunset.	Serotine/Nyctalus Serotine Myotis sp. Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Pipistrellus sp. Unknown	173	Serotine/Nyctalus (10) Serotine (7) Myotis sp. (7) Leisler's bat (64) Noctule (1) Common pipistrelle (6) Soprano pipistrelle (64) Pipistrellus sp. (9) Unknown (5)
		10/10/17	18:30	Barbastelle recorded 33 minutes after sunset. Common pipistrelle recorded 38 minutes after sunset. Soprano pipistrelle recorded 21 minutes after sunset.	Barbastelle Serotine/Nyctalus Serotine Leisler's bat Noctule Common pipistrelle Soprano pipistrelle Unknown	43	Barbastelle (1) Serotine/Nyctalus (3) Serotine (3) Leisler's bat (8) Noctule (4) Common pipistrelle (3) Soprano pipistrelle (17) Unknown (4)

Table F.16: Summary of static activity levels by month

Static	Month	Total number of passes
Offline 1a	April	97
	May	1128
	June	130
	July	461
	September	133
	October	1083
Offline 1b	April	766
	May	1757
	June	693
	July	365
	August	263
	September	123
	October	1214
Offline 1c	April	389
	May	934
	June	307
	July	539
	August	1338
	September	179
	October	115
Offline 4a	April	569
	May	961
	June	928
	July	159
	August	1343
	September	559
Offline 4b	April	365
	May	361
	June	185
	July	936
	August	340
	October	60
Offline 4c	April	340
	May	361
	June	417
	July	2044
	September	549
	October	826
Online 1.1a	April	73
	May	78
	June	519
	July	440
	August	573
	October	70
Online 1.1b	June	411
	July	485
	August	315
	September	54
	October	152
Online 1.1c	April	457
	May	634
	June	1117
	July	2180
	August	487
	September	812
	October	6288

Static	Month	Total number of passes
Online 1.2a	July	693
	August	607
	September	1019
	October	2553
Online 1.2b	June	182
	July	216
	August	278
	September	83
	October	70
Online 1.2c	April	232
	May	128
	June	350
	August	332
	September	196
Online 2.2a	June	293
	July	359
	August	396
	September	348
	October	226
Online 2.1b	June	306
	July	712
	August	132
	September	283
	October	297
Online 2.1c	April	340
	May	212
	June	1752
	July	1406
	August	1222
	September	409
	October	701
Online 2.2a	April	1802
	May	2084
	June	415
	July	3978
	August	1819
	October	818
Online 2.2b	June	1632
	July	212
	August	1011
	September	901
Online 2.2c	April	740
	May	1116
	June	1530
	July	968
	August	545
	October	1336