agb ENVIRONMENTAL

Ecological Impact Assessment

Cemetery Depot (West), Benhall Mill Rd, Tunbridge Wells. TN2 5JH

Client Name: Tunbridge Wells Borough Council

Project Number: P2829.5.1

Date: 2 June 2021

ENABLING DEVELOPMENT

Client	Tunbridge Wells Borough Council
Agent	AECOM Infrastructure and Environment UK Ltd
Site	Cemetery Depot (West), Benhall Mill Rd, Tunbridge Wells TN2 5JH
Report reference	P2928.5.1
Prepared by	Charlotte Alanine BSc (Hons), Assistant Ecologist
Reviewed by	Leslie Cousins BSc (Hons) PhD, MCIEEM, Principal Ecologist
Approved by	Richard Parmee BSc MSc Tech Cert (ArborA) MArborA
Date	02 June 2021
Version	Final

1 The Mill. Copley Business Park,
Babraham Road, Cambridge. CB22 3GN
Tel: 01638 663226
www.agbenvironmental.co.uk

agb Environmental Ltd

1 Summary

Site	Cemetery Depot (West), Benhall Mill Rd, Tunbridge Wells TN2 5JH
Central OS Grid Reference	TQ 59313 37763
Report Commissioned by	AECOM Infrastructure and Environment UK Ltd on behalf of Tunbridge Wells Borough Council
Most Recent Site Visit	7th September 2020

Considerations	Description	Comments & Recommendations
Surveys Undertaken	Desk based study, walkover survey and nocturnal bat surveys.	All survey work informed the impact assessment and no further surveys are considered necessary.
Ecological Features	The site comprises buildings, bare ground and a line of trees.	The site is considered to be of **negligible importance** due to the heavy management of its habitats, high levels of disturbance and poor plant diversity.
Ecological Impacts	Bat roost	A Bat Mitigation Class Licence and method statement will be necessary to proceed with the demolition of B1 which is known to support bats.
	General	It is assumed that the mitigation outlined in Section 5 will be adhered to at all times and no other significant effects from the proposed development are anticipated.
General Avoidance and Mitigation	Line of trees	Where necessary protect trees from construction activities with fencing according to BS5837:2012 and replant any trees lost to development with native species of local provenance.
	Birds (nesting)	Clear buildings and any woody vegetation outside the nesting bird season, or after a nesting bird survey by an ecologist if clearance is scheduled between March and August (inclusive).
	Nocturnal mammals.	Cover trenches or provide planked escape routes to allow any animals that fall in to escape.
	Bats	Minimise artificial lighting during and post-construction.
Enhancements	Biodiversity Net Gain	Prepare and implement a Biodiversity Enhancement Scheme
	Enhancements	Boxes for wildlife and native planting

Contents

2 Introduction

2.1 Background

agb Environmental was commissioned by AECOM Infrastructure and Environment UK Ltd on behalf of Tunbridge Wells Borough Council to undertake an Ecological Impact Assessment of land at Cemetery Depot (West), Benhall Mill Road, Tunbridge Wells TN2 5JH, herein referred to as 'the site'.

A Preliminary Ecological Appraisal (PEA), bat surveys and a reptile survey were undertaken to inform this assessment. No further surveys were considered necessary and a sufficient level of design information was available to inform an assessment of ecological impacts

This report will support a planning application to redevelop and modernise part of an existing cemetery depot.

2.2 Site Location and Description

The site is located to the south of Benhall Mill Road in Tunbridge Wells, Kent at central Ordnance Survey Grid Reference: TQ 59313 37763. The c. 0.13ha site comprises buildings, bare ground and lines of trees (see **Appendix 1**).

Situated within an urban location the site is surrounded by housing development with private gardens and roads to the north and east, as well as cemetery grounds and local wildlife site to the south and west. The wider area comprises urban settlement, a golf course, agricultural land, hedgerow, waterbodies and pockets of woodland.

2.3 Development Proposal

Tunbridge Wells Borough Council proposes to demolish three existing storage buildings and construct a new facility unit for cemetery workers as per the current use of the site. It is understood the entire site will be cleared to enable the redevelopment. Boundary trees and hedges at the south and west will be retained (On Architecture, 2020).

2.4 Scope of the Assessment

This report presents information obtained during the following:

- An update desk study and habitat assessment undertaken during September 2020;
- An update reptile survey conducted during August and September 2020;
- An update bat surveys completed between July and August 2020;
- A bat survey (agb Environmental, 2017b); and
- A Preliminary Ecological Appraisal and bat roost assessment (agb Environmental, 2017a).

2.5 Objective

The objective of the assessment is to identify and describe all potentially significant effects associated with the development proposal and set out any requirements for mitigation necessary to comply with conservation legislation or to address potential significant ecological effects. Potential enhancement opportunities have been identified in accordance with planning policy, and European and UK wildlife legislation (**Appendix 2**).

3 Methodology

3.1 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database (Natural England, 2020) was accessed on the 21st September 2020 for information regarding:

- Natura 2000 sites such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within 5km of the site;
- Statutory sites designated for nature conservation such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs) within a 2km radius of the site;
- Natural England's Impact Risk Zones (IRZs) for SSSIs, SACs, SPAs and Ramsar sites within which the site was located;
- Any European Protected Species Mitigation (EPSM) licences granted by Natural England within a 2km radius of the site; and
- Positive great crested newt licence returns within 2km of the site.

The Kent and Medway Biological Record Centre (KMBRC) was consulted on the 8th September 2020 for the following information for a 2km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS);
- Existing records of legally protected species, such as great crested newts, reptiles, birds and bats; and
- Existing records of notable species, such as those listed in the local Biodiversity Action Plan (TWBC, 2008).

3.2 Habitat Survey

An initial detailed walkover of the site was undertaken by a suitably qualified Senior Ecologist on the 27th June 2017 to record and map habitat types and ecological features within the site (agb Environmental, 2017a). The initial survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017), and with reference to the Handbook for Phase 1 habitat survey (JNCC, 2010). This method of survey provides information on the habitats in the survey area and assesses the potential for notable or protected fauna to occur in or adjacent to the survey area.

The site was visited on numerous occasions during 2020. The baseline conditions recorded within the site in 2017 have been updated to reflect conditions observed during the most recent site visit of 7th September 2020. Weather conditions during the latest site visit: 13°C; a light breeze (Beaufort 1), 100% cloud cover and dry.

Features of interest were identified as target notes on the Habitat Map (**Appendix 1**).

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by development of the site.

3.3 Protected and Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support protected and notable species. This included species listed under the *Conservation of Habitats and Species Regulations (as amended) 2017*, the *Wildlife and Countryside Act 1981 (as amended) (WCA)*, and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006*, *Countryside and Rights of Way (CRoW) Act 2000*, and the *Protection of Badgers Act 1992.*

The following section outlines the protected / notable species that were considered within the assessment:

3.3.1 Amphibians

The site was assessed for suitability to support amphibians such as the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo.* The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

Maps and aerial images were searched for the presence of ponds, and other waterbodies, suitable for breeding amphibians within 250m of the site boundary.

3.3.2 Badgers

The site and a 30m zone around the site (where accessible), were surveyed for badger *Meles meles* evidence such as setts, latrines, pathways, footprints, snuffle holes and badger hairs (Harris, et al., 1989).

3.3.3 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2016). Details of the criteria used are provided in **Appendix 3**.

3.3.3.1 Preliminary Roost Assessment

The buildings on site were assessed for suitability to support roosting bats according to the classifications in **Table A3.1, Appendix 3**. Equipment used to investigate the buildings included binoculars, a ladder and a high-power torch. All buildings were described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains.

Habitats and features within the site were assessed for suitability to support foraging and commuting bats according to criteria set out in guidance (Collins, 2016).

Bat roosting suitability was assessed by bat licensed ecologist Owen Jones BSc (Hons) (licence number 2017-31719-CLS-CLS) on the 2nd July 2020.

3.3.3.2 Nocturnal Surveys

Nocturnal surveys were conducted to determine the presence or likely absence of bat roosts. The building fronting Benhall Mill Road (B1) was subject to two dusk emergence surveys and one dawn re-entry survey in line with standard guidance (Collins, 2016).

Emergence surveys commenced fifteen minutes before sunset and continued for one and a half hours after sunset. The re-entry survey commenced one and a half hours before sunrise

and finished fifteen minutes after sunrise. Refer to **Table 3.1** for the survey dates and weather conditions.

Table 3.1. Times and weather conditions of the emergence / re-entry surveys.

Building	Date (2020)	Sunrise / Sunset	Weather Conditions Temperature (ºC), Wind (Beaufort 1-12), Cloud Cover (%) and Rain
B1	2nd July	21:17	19°C, BFS 1, 70%cc, dry.
B1	16th July	21:06	22°C, BFS 0, 60%cc, dry.
B1	4th August	05:24	15°C, BFS 0, 10%cc, dry.

Supplementary monitoring data were gathered through the deployment of an Anabat Express static detector sited within the loft space of B1 from the 16th July to the 4th August 2020. Zero Crossing data were analysed using Analook W software.

Surveyors were situated at stations located on the northern western (NW) and south eastern (SE) faces of the building to give suitable coverage of potential roost features (**Appendix 5**). Elekon BatLogger M detectors were used to listen to and record calling bats.

Surveyors recorded any bat activity observed within the site, including species, flight direction and behaviour. Post survey analysis of digitally recorded bat calls was conducted using BatExplorer (version 1.11.4.0).

Surveys were co-ordinated and conducted by licensed bat ecologist Owen Jones BSc (Hons) and assisted by experienced bat worker Charlotte Alanine BSc (Hons).

3.3.3.3 Foraging and Commuting

Habitats and features within the site were assessed for suitability to support foraging and commuting bats according to criteria set out in guidance (Collins, 2016) (see **Table A.3, Appendix 3**).

3.3.4 Birds (Nesting)

The site was assessed for potential to support nesting birds. Buildings within the site were externally and internally inspected from the ground for signs of nesting birds. Vegetation including trees, hedgerows and dense scrub were also assessed for their potential for nesting birds.

3.3.5 Birds (Barn Owl)

Buildings within the site were externally inspected from the ground for signs of barn owl *Tyto alba* following *Survey Techniques Leaflet No. 8* (The Barn Owl Trust, 2010). Barn owl pellets, white excreta ('whitewash'), feathers and nest debris were searched for. Any potential access points and darkened cavities of sufficient size to accommodate owls were noted. Attention was given to walls beneath any openings, and overhead structures such as beams or ledges.

3.3.6 Hazel Dormouse

The site was assessed for potential to support the hazel dormouse *Muscardinus avellanarius*, in accordance with the *Dormouse Conservation Handbook* (Bright, et al., 2006).

3.3.7 Reptiles

The site was assessed for suitability to support common species of reptile with reference to the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An*

Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation (Froglife, 1999).

3.3.8 Other Protected, Rare and Notable Species

The site was assessed for suitability to support other protected and notable fauna species / assemblages including invertebrates and other mammals.

3.3.9 Invasive Species

Incidental observations of non-native invasive plants such as those listed under Schedule 9 of the Wildlife and Countryside Act were recorded and mapped (HMSO, 1981).

3.4 Nature Conservation Evaluation and Impact Assessment

3.4.1 Nature Conservation Evaluation

Designated sites, habitats and species (where presence has been identified) have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial and Freshwater* (CIEEM, 2018).

These guidelines aim to give consistency in evaluating the importance of the ecological features within and around a site, which help inform any effects or impacts a scheme will have upon them.

A value of the ecological features (designated sites, habitats or species) has been assigned according to their level of importance using the following terms:

- International and European
- National
- Regional
- County
- Local; and
- Negligible.

3.4.2 Ecological Impact Assessment

The assessment of predicted Ecological Impacts (positive, negative or neutral) is based on the results of the walkover survey, the desk study, relevant literature and professional knowledge of ecological processes and functions.

The assessment for potential cumulative effects was informed by a search of the online planning portal provided by Tunbridge Wells Borough Council (TWBC, 2020). The portal was searched on the 23rd September 2020 for details of submitted and permitted developments within the same postcode as the site.

3.5 Limitations and Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the surveys. The surveys were completed during the optimal time of year for recording the respective species. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed.

This assessment provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further actions have been recommended where

there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

This assessment does not constitute a full botanical survey or a Phase 2 pre-construction survey for non-native invasive species.

Assuming conditions within the site and the development proposal remain unchanged, the results of this assessment are likely to remain valid for up to three years i.e. until September 2023 (BSI, 2013). If works have not yet commenced by this time it may be necessary to update the assessment.

With regards to bat roosts; if a period of more than three months elapses between the most recent survey and the submission of a licence application, a walk over survey, as a minimum, should be carried out to confirm that conditions within the site are unchanged.

4 Baseline Conditions

The following section presents the results, evaluation and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development. The conditions described in this section represent the predicted baseline at the time when development proceeds. Works are understood to be planned for Spring of 2021.

4.1 Designated Sites

4.1.1 Statutory Sites

There were no statutory sites designated for nature conservation located within the vicinity of the site.

The site falls within the Eridge Park SSSI IRZ, however the development does not meet criteria for impacts that would likely lead to a significant effect on this SSSI. No consultation with Natural England and no specific mitigation is anticipated for this SSSI.

Statutory conservation sites are removed from further consideration within this assessment.

4.1.2 Non-Statutory Sites

Details of the four non-statutory sites designated for nature conservation that are located within 2km of the application site are provided in **Table 4.1**. LWSs are of **local importance**.

Table 4.1: Non-statutory sites within 2km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Kent and Sussex Cemetery, Hawkenbury LWS	Immediately adjacent to southern site boundary	11	This site supports green-winged orchids *Anacamptis morio*, fungi, common birds and invertebrates.
Windmill Farm, Hawkenbury LWS	500m NE	Not specified.	Not specified.
High Wood, Hawkenbury LWS	970m NE	5.01	An ancient oak and sweet chestnut woodland.
Rushall Common and Tunbridge Wells Common	1.6km NW	104	A mosaic of habitats including heath, grassland, open sandy areas around the major rock formations, secondary woodland and semi-natural ponds for public enjoyment. Red-listed species such as song thrush *Turdus philomelos*, mistle thrush *Turdus viscivorus*, linnet *Linaria cannabina* and redpoll *Acanthis sp.* have been recorded on site.

The Kent and Sussex Cemetery LWS is adjacent to the site's southern boundary. It is assumed that the cemetery was designated for its relatively large size, intrinsic appeal and potential value for wildlife. It is considered that the development will be small enough for there to be no direct impacts on the habitats within the adjacent LWS.

The current application involves updating and modernising facilities used by the organisation responsible for managing and maintaining the wildlife site. It is not expected that works within

the depot would have a detrimental effect upon the cemetery or features within it that are considered important for local wildlife.

Local wildlife sites are removed from further assessment.

4.2 Habitats

The habitats below are present within the site. No protected, Priority or locally important habitats were recorded during the survey. Habitat types are described below and shown on the Habitat Map (**Appendix 1**):

- Buildings
- Bare ground
- Line of trees

4.2.1 Buildings

Photos and a description of the buildings within the site are provided in relation to their bat roosting suitability in **Section 4.3.3**.

4.2.2 Bare Ground

Access tracks and a parking area were recorded within the site, which are of **negligible** importance.

No further consideration within this assessment.

4.2.3 Line of Trees

A line of trees comprising Lawson cypress *Chamaecyparis lawsoniana* is present along the southern and western site boundaries (**Photo 4.1**). A small section either side of the vehicle access point on the north-western boundary is managed more intensively and kept to a height of approximately 3-4m. The remainder of the feature comprises tall, mature trees, which are well managed on the cemetery side to the south and west.

The line of trees is of **negligible** importance. This feature was not considered to be important due to its lack of native species and associated features.

It is understood this feature is to be retained and therefore general mitigation measures for trees during the construction phase is recommended in **Section 5**.

Photo 4.1: Line of trees forming part of southern boundary, looking south (2017).

4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below. Older records have been considered where appropriate. None of the records pertain to the site, and MAGIC returned five records of granted EPSM licences and two great crested newt class survey licence returns within the 2km search area.

4.3.1 Amphibians

The KMBRC returned one recent record of great crested newt located 1.7km to the north east of the site (2011). There were four earlier records which were over 20 years old.

MAGIC provided great crested newt survey returns from two locations within 2km. The nearest were returned in 2014 from an unconfirmed pond c. 180m to the north-east of the site (Natural England, 2020). The most recent was from 2016.

Natural England's Rapid Risk Calculator which considers risks according to the size of a development and its distance from breeding ponds suggests that works within this site are unlikely to breach legislation if ponds are located more than 100m away (Natural England, 2015).

No ponds are located within the site.

The dominant habitats on site (buildings, sealed surfaces and bare ground) represented poor quality terrestrial habitat and are considered unsuitable for great crested newt. Although some features could be used by sheltering amphibians such as debris and rubble piles, these features are subject to high levels of human disturbance. Further, it is unlikely that significant populations of notable amphibians are present locally due to a limited number of breeding ponds.

There were 12 recent records of common toad with the nearest 1.7km to the north-east of the site and the latest from 2012.

The site is considered to hold **negligible** potential for great crested newts and **impacts to other amphibians are not expected**.

Amphibians are removed from further assessment.

4.3.2 Badgers

The KMBRC did not return any recent records of badgers within the 2km search area, however 23 older records were returned with the most recent from 2009.

No badger setts were recorded on or within 30m of the site boundary. No signs of badger were detected during the walkover survey. Further, there were no foraging or commuting opportunities on site due to the dominance of artificial habitats. The site is considered to hold **negligible** potential for badgers.

General precautionary measures to protect nocturnal mammals are recommended in **Section 5**. Badgers are not considered any further within this assessment.

4.3.3 Bats

The KMBRC returned numerous recent bat records comprising four species which are summarised in **Table 4.2**.

Table 4.2: Bat records within 2km of the site.

Bat Species	Protection	Nearest and Most Recent Records
Common pipistrelle *Pipistrellus pipistrellus*	CHSR[1]; WCA[2].	108 records, the nearest 500m S, the latest 2017.
Soprano pipistrelle *Pipistrellus pygmaeus*	CHSR, WCA; SPIE[3].	32 records, the nearest 640m NE, the latest 2017.
Nathusius' pipistrelle *Pipistrellus nathusii*	CHSR, WCA.	One record, located 1.9km NE (2011).
Whiskered bat *Myotis mystacinus*	CHSR, WCA.	Two records, the nearest 1.9km SE, the latest 2017.

Table 4.3 provides a list of bat EPSM licences granted by Natural England within 2km of the site (Natural England, 2020).

Table 4.3: Granted bat EPSM licence applications within 2km of the site.

Case Reference	Bat Species	Type of licence	Distance & Direction	Licence Start & End Dates
2016-27316-EPS-AD2	Common pipistrelle Soprano pipistrelle	Destruction of resting place	530m NE	07/03/2017-01/03/2022
2016-27316-EPS-AD2-1	Common pipistrelle Soprano pipistrelle	Destruction of resting place	530m NE	14/08/2017-01/03/2022

4.3.3.1 Roosting

Building 1 – Fronting Benhall Mill Road

A brick-built structure c. 22m x 4m forms part of the northern site boundary fronting Benhall Mill Road (**Photo 4.2**). The northern face of the building comprises a stone wall, with gaps present at the top of wall at the join with the eves. The single storey building comprises a

[1] Conservation of Habitats and Species Regulations 2017.
[2] Wildlife and Countryside Act 1981 (as amended).
[3] Species of Principal Importance in England of Section 41 of the Natural Environmental and Rural Communities Act (NERC), 2006.

ground floor and a loft section with external access doors and timber fascia boards. The loft-level access and most of the ground floor windows and doors are boarded up, with no access to the interior possible. Some gaps are present around the boards, allowing potential access by bats to the space between the boards and windows.

The pitched tiled roof is lined with bitumen felt. Tiles on both the northern and southern faces are slipped and gappy. A ridge tile is missing from the eastern end of the building. The crevices beneath the slipped tiles may offer suitable roosting opportunities for small numbers of crevice-roosting bat species. The loft space was accessed on 16th July 2020 during which scattered bat droppings were collected.

Nocturnal surveys conducted in 2017 (agb Environmental, 2017b) were updated in 2020, (see **Appendix 5** for raw data);

Dusk Emergence 2nd July 2020

The first observed bat was a single common pipistrelle heading north likely to have emerged from the eastern apex of the roof (21:37, 20 minutes after sunset). Two species were recorded during the survey; common pipistrelle and infrequent noctule. The greatest number of bats observed at any one instant was one. Noctule activity was not associated with the site. Frequent foraging behaviour was observed around artificial street lighting on the Benhall Mill Road.

Dusk Emergence 16th July 2020

The first recorded bat was a common pipistrelle which was heard but not seen (20:53, 13 minutes after sunset). Two species were recorded during the survey; common pipistrelle and infrequent noctule. Noctule activity was not associated with the site. The greatest number of bats observed at any one instant was two common pipistrelle. Frequent foraging behaviour was observed around artificial street lighting on the Benhall Mill Road.

Dawn Re-entry 4th August 2020

An observation, suggesting re-entry, a common pipistrelle seen rapidly flying north to south towards the eastern corner of B1 and disappearing out of sight was noted at 04:34 (50 minutes before sunrise). Common pipistrelle were the sole species recorded during the survey. The latest bat activity recorded was at the south-east of the building which ended at 05:11 (13 minutes before sunrise) when the bat flew away from the site.

Passive Monitoring

No bats were recorded during the passive monitoring within the loft space.

Photo 4.2: Building 1, facing north.

The presence of a bat roost of low conservation significance cannot be ruled out due to the presence of bat droppings and activity observed during emergence and re-entry surveys. Building B1 is an occasionally used day roost likely utilised by common pipistrelle.

Building B1 is scheduled for demolition, mitigation and licensing are discussed in **Section 5**.

Building 2 – Along South Boundary

Sectional building c. 50m in length, with the north-western end comprising rendered walls, several broken windowpanes with timber frames, and internally, disused office spaces. The single-storey building comprises corrugated, asbestos-type sheet roofing on timber rafters. The mid-section of the building is used to store machinery, plant and equipment and has a large, open, internal space (**Photo 4.3**). Wooden doors at the front provide potential access for bats. The south-eastern end of the building has an open-fronted section, used for storage (**Photo 4.4**). None of the sections within the building had features suitable for roosting bats and no evidence of bats was noted on or within the building. Building B2 has **negligible suitability** for roosting bats.

Photo 4.3: Building 2 – facing north-eastern and middle sections, with B3 to right of photo.

Photo 4.4: Building 2 – south-eastern section.

Building 3 – North-west Corner of Site

A brick and concrete, single storey building approximately 14m x 8m (**Photo 4.5**). The building comprises a pitched, metal-corrugated sheet roof, which lay directly on timber beams, which are exposed to the open-plan workspace below. The building is used as a store and workroom and is in regular use. Internally the building is light and subject to high levels of human disturbance. Whilst many gaps permitting access by bats are present, the building does not offer suitable roosting opportunities. No evidence of bats was noted on or within the building. Building B3 is of **negligible suitability** for roosting bats.

Photo 4.5: Building 3, looking west.

4.3.3.2 Foraging and Commuting

The nocturnal surveys recorded low to moderate levels of bat commuting and foraging activity across the northern boundary of the site. The most frequently recorded bat species were common bats with infrequent recordings of noctule. These represent common and widespread species in Kent. Although a number of bat records were returned, limited foraging habitat for bats, in the form of dominating artificial habitats and a line of cypress trees were recorded within the site. The line of cypress trees is unlikely to be of importance for commuting bats due its short length. The small site has limited areas of suitable foraging habitat and is considered to be of **negligible** suitability for foraging and commuting bats.

It is understood the line of trees along the southern and western boundaries will not be removed according to the current proposals.

Mitigation for commuting and foraging bats is discussed in **Section 5**.

4.3.4 Birds (Nesting)

The KMBRC returned numerous records of birds listed as Annex I (Birds Directive), Schedule 1 (*WCA*) and / or of Conservation Concern (BoCC4) (see **Appendix 4**). Annex I and Schedule 1 birds which were returned are unlikely to utilise the habitats within the site due to unsuitable habitats and/or limited foraging and nesting opportunities available.

The following birds were also incidentally recorded during surveys: goldfinch *Carduelis carduelis*, house sparrow, blackbird *Turdus merula* and wood pigeon *Columba palumbus*.

Bird interest (nesting / foraging) is likely to be confined to the line of trees and buildings. The site was therefore considered to hold **high** potential for widespread species of nesting bird. However, the site overall was considered to hold **negligible** potential for significant bird species and assemblages.

Further action for nesting birds is recommended in **Section 5**.

4.3.5 Birds (Barn Owl)

The only building within the site that is accessible to barn owl is the open fronted southern section of Building B2. This structure within a working depot is subjected to frequent disturbance. There were no signs of owl presence and the there are no ledges or otherwise suitable structures within the building that could be taken up by nesting barn owl.

No further assessment for barn owl.

4.3.6 Invertebrates

The KMBRC held no records of invertebrates listed on *Schedule 5* of the *WCA*. There were, however, 19 records of notable (Section 41 NERC Act 2006) butterflies including grizzled skipper *Pyrgus malvae*, small heath *Coenonympha pamphilus* and white admiral *Limenitis camilla* within the 2km search area. The majority of these records originated from High Wood Hawkenbury LWS located 970m north east of the site.

Limited nectaring opportunities were available for butterflies, and the habitats to support saproxylic invertebrates were not present. Further, habitats to be significantly impacted by the proposals (buildings, artificial sealed surfaces) were unlikely to support other rare or notable invertebrate species. The site was therefore considered to hold **negligible** potential for rare / notable invertebrates.

Invertebrates are removed from further consideration within this assessment.

4.3.7 Hazel Dormouse

The KMBRC returned one record of hazel dormouse located 1.3km north east of the site (2015).

Table 4.5 provides a list of hazel dormouse EPSM licences granted by Natural England within 2km of the site (Natural England, 2020).

Table 4.5: Granted dormouse EPSM licence applications within 2km of the site.

Case Reference	Species	Type of licence	Distance & Direction	Licence Start & End Dates
2017-28363-EPS-AD2	Hazel dormouse	Destruction of breeding site	290m S	31/03/2017-30/11/2026
2017-28363-EPS-AD2-1	Hazel dormouse	Destruction of breeding site	290m S	28/09/2017-30/11/2026
2016-26744-EPS-AD2	Hazel dormouse	Destruction of breeding site	780m NE	23/02/2017-30/11/2030

The site is located within the dormouse natural range and EPSM licence applications were returned locally, the line of trees on site did not contain suitable food plants. According to satellite images, the boundary tree line was relatively isolated from hedgerow networks and lacked connectivity to other off-site suitable dormouse habitat in the surrounding area. The site is considered to hold **negligible** potential for dormice.

Hazel dormice are removed from further consideration within this assessment.

4.3.8 Reptiles

The KMBRC returned one recent record of common lizard *Zootoca vivipara* located 300m north west of the site (2018), four records of slow worm *Anguis fragilis* with the nearest located 1km north west of the site and latest from 2014 and one record grass snake *Natrix helvetica* located 2km north west of the site (2010). Additionally, 30 older records of reptiles, including adder *Vipera berus*, were returned.

Although a number of recent reptile records were returned locally, the site is dominated by artificial habitats including buildings, sealed surfaces and bare ground that is subjected to frequent disturbance. There are no suitable habitats available for basking, foraging or hibernating reptiles.

Reptiles are removed from further consideration within this assessment.

4.3.9 Hedgehog

The KMBRC returned six older records of hedgehog *Erinaceus europaeus* with the most recent from 2003. Some features on site had **low** potential for hedgehogs, including small brash piles for sheltering and the line of trees for cover. Suitable habitat was present in the adjacent cemetery and surrounding landscape.

Precautionary avoidance measures for nocturnal mammals are recommended in **Section 5**.

4.3.10 Other Protected, Rare and Notable Species

The site and habitats within the site were assessed with regard to potential for other protected, rare or notable species which have not been considered above. It was concluded that the proposed development did not represent a risk to other protected, rare or notable species.

No further actions are recommended with respect to other protected, rare or notable species.

4.3.11 Invasive Plants

There were no incidental observations of non-native invasive species such as listed under Schedule 9 of the Wildlife and Countryside Act (HMSO, 1981)

No further action has therefore been recommended.

5 Impact Assessment

Habitats, species and species groups that are considered to have negligible nature conservation value are not considered important ecological features in the context of this assessment. Any impact on such a feature as a result of the development is considered unlikely to have a significant effect on the conservation status of such habitats or species on a local, regional, national or international scale.

This Section characterises the impacts and the subsequent effects (both positive and negative) of the proposed development on the important ecological features within the site. It also sets out avoidance, mitigation, compensation and enhancement measures, and assesses the significance of the residual effects (both positive and negative) of the development on these features.

It is recommended that the mitigation measures identified in **Section 5.1** onwards will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the application site.

5.1 Bats (Roosting)

Predicted Impacts

Building B1 is characterised as supporting an occasional pipistrelle day roosts, potential negative impacts are as below:

- Permanent loss of features used by occasional day roosting pipistrelle bats;
- Disturbance of torpid bats during construction; and
- Harm, injury or killing of individual bats.

Mitigation

Any works with potential to disturb, obstruct or destroy a bat roost are required by law to be conducted under licence issued from Natural England. A licence for development cannot be issued without planning permission having first been obtained. Further updating visits and nocturnal surveys may be required to inform a licence application.

A licence application for a commercial development is likely to require an accompanying reason statement to address the three licensing tests.

Wherever possible, loss of roosts will be avoided. Confirmed roost sites such as external crevices will, wherever possible, be replicated within the final design.

Where roosts cannot be retained, alternative provisions such as bat boxes will be provided. Potentially illegal works will be controlled and managed under a licensed method statement. It is considered likely that the building would qualify for registration under the Bat Mitigation Class Licence.

Significance of Residual Effects

The incorporation of mitigation measures detailed above will prevent inadvertent disturbance to roosting bats. It is therefore anticipated that during construction and operation, there will be no significant effects on bats roosting within the site.

5.2 Cumulative Impacts and Effects

The proposed development is planned to affect a small complex of buildings within an area dominated by artificial habitats including buildings and sealed surfaces which are of negligible

conservation value. No other planned or approved developments are listed within the locality. It is understood that the landowner is pursuing a proposal for a minor housing development which will occupy land immediately to the east.

No significant effects are predicted as a result of this project which is therefore highly unlikely to amplify or otherwise negatively influence effects that may arise from or be caused by other developments which may be further afield.

5.3 General Avoidance and Mitigation Measures

The following will be implemented during the construction phase of the development to comply with national and local planning policy, current legislation and best practice:

5.3.1 Pollution

General measures to avoid or minimise any negative effects on ecological receptors including following CIRIA guidelines;

5.3.2 Nesting Birds

Woody vegetation and buildings will be cleared between September and February (inclusive) to avoid the breeding bird season. Alternatively, an ecologist will check potential nesting habitat immediately before clearance if it is scheduled during the breeding season (March to August inclusive). Any active nests identified will be retained in situ with a suitable buffer until the ecologist has confirmed that the chicks have fledged and the nest is no longer active.

5.3.3 Foraging and Commuting Bats

The following measures should be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (ILP, 2018):

- Avoid illuminating roosts, swarming sites and corridors used by light averse species for commuting and foraging;
- Direct any task lighting used during construction away from trees and hedges (retained and new);
- Set any necessary security lighting on short timers (e.g. 1 minute) with a sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation;
- Limit lighting times to provide dark periods;
- LED luminaires are preferred due to the lower intensity, sharp ‘cut-off’, colour rendition and dimming capability;
- All luminaires should lack UV elements and metal halide fluorescent sources should not be used. Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and
- Carefully consider the height of columns to avoid light spill.

5.3.4 Line of Trees

Retain lines of native trees where possible and protect where required during construction with Heras fencing in line with *Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012* (British Standards Institution, 2012).

Replant any trees lost to the development with native specimens of local provenance (refer to **Appendix 6** for suitable species).

5.3.5 Nocturnal Mammals

Cover any trenches, holes or deep pits overnight, or use secured planks to allow any animals that fall in to escape during construction. A member of staff should check the site at the end of each working day to ensure that these provisions to protect nocturnal species, such as hedgehog, have been made.

5.4 Enhancements and Biodiversity Net Gain

5.4.1 Biodiversity Net Gain

National planning policy framework (NPPF) requires development proposals to demonstrate post development gains in biodiversity.

Under the NPPF planners have a duty to protect and enhance biodiversity the framework requires plans to promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species. Plans will identify and pursue opportunities for securing measurable net gains for biodiversity (MHC&LG, 2019).

This national policy is supported by the local plan (TWBC, 2010).

A “minor” development typically commensurate to five or fewer houses would likely require a Biodiversity Enhancement Scheme (BES) to be supplied with a planning application (Baker, et al., 2019).

5.4.2 Enhancements

In line with planning policy, the developer will be required to provide ecological enhancements which are appropriate for the site and which support local and national biodiversity strategies.

It is recommended that a Biodiversity Enhancement Scheme is produced to compliment the final design and landscape. The enhancements described below are examples of features which are considered suitable for the current situation:

- Nesting cups for barn swallow (require open buildings or purpose-built covered ledges);
- Nest boxes for starling and house sparrow;
- Roost boxes for bats; and
- Planting a diverse range of native species (**Appendix 6**).

6 Conclusion

The Benhall Mill Road site is of negligible importance as it is dominated by buildings, hard standing and bare ground. Three buildings are present within the site which will be demolished for the site to be re-developed. One of the buildings supports an occasionally used day roost. For compliance, this building will be dismantled under a method statement licensed by Natural England.

There is also the opportunity to enhance the development for local wildlife in the long-term by preparing and implementing a Biodiversity Enhancement Scheme.

7 References

agb Environmental, 2017a. *P2928.1.0 Preliminary Ecological Appraisal Report, Cemetery Depot, Benhall Mill Road, Tunbridge Wells, Kent. TN2 5JH,* Newmarket: agb Environmental Ltd.

agb Environmental, 2017b. *P2928.3.0 Bat Survey Report, Cemetery Depot, Tunbridge Wells,* Newmarket: agb Environmental Ltd.

Baker, J., Hoskin, R. & Butterworth, T., 2019. *Biodiversity net gain. Good practice principles for development. A practical guide,* London: CIRIA.

Bright, P., Morris, P. & Mitchell-Jones, A., 2006. *The Dormouse Conservation Handbook.* 2nd ed. Peterborough: English Nature.

British Standards Institution, 2012. *BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations.* United Kingdom: British Standards Institution.

BSI, 2013. *BS 42020:2013 Biodiversity - Code of practice for planning and development,* United Kingdom: British Standards Institution.

CIEEM, 2017. *Guidlines for Preliminary Ecological Appraisal.* 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2018. *Guidlines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine..* version 1.1 ed. Winchester: Chartered Institute of Ecology and Environmental Management.

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Best Practice Guidelines.* 3rd ed. London: The Bat Conservation Trust.

Froglife, 1999. *Froglife Advice Sheet 10 Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation.* Peterborough: Froglife .

Gent, A. & Gibson, S., 2003. *Herpetofauna Workers' Manual.* Peterborough: Joint Nature Conservation Committee.

Harris, S., Cresswell, P. & Jeffries, D., 1989. Surveying Badgers. In: *An occasional publication of the mammal society - No. 9.* London: Mammal Society .

HMSO, 1981. *The Wildlife and Countryside Act,* London: Her Majesty's Stationery Office.

HMSO, 1992. *Protection of Badgers Act,* London: Her Majesty's Stationery Office.

HMSO, 1996. *Wild Mammals (Protection) Act,* London: Her Majesty's Stationery Office.

HMSO, 2000. *The Countryside and Rights of Way (CRoW) Act,* London: Her Majesty's Stationery Office.

HMSO, 2005. *Biodiversity and geological conservation:circular 06/2005,* London: Department for Communities and Local Government.

HMSO, 2006. *Natural Environment and Rural Communiuties Act (NERC Act),* London: Her Majesty's Stationery Office.

HMSO, 2017. *The Conservation of Habitats and Species Regulations,* London: Her Majesty's Stationery Office.

ILP, 2018. *Bats and Arteficial Lighting in the UK, bats and the built environment series - Guidance Note 08 / 18,* London: The Bat Conservation Trust / Institute of Lighting Professionals.

JNCC, 2010. *Handbook for Phase I Habitat Survey: a technique for environmental audit (revised reprint).* 2nd ed. Peterborough: Joint Nature Conservation Committee.

Langton, T., Beckett, C. & Foster, J., 2001. *Great Crested Newt Conservation Handbook.* Halesworth: Froglife.

MHC&LG, 2019. *National Planning Policy Framework,,* London: Her Majesty's Staionery Office.

Natural England, 2008. *Gardening With Wildlife in Mind.* London: Natural England.

Natural England, 2015. *Template for Method Statement to support application for licence under Regulation 53(2)e of The Conservation of Habitats and Species Regulations 2010 (as amended) in respect of great crested newts Triturus cristatus. Form WML-A14-2,* online: Natrural England.

Natural England, 2020. *MAGIC Map Application.* [Online] Available at: http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx

On Architecture, 2020. *Draft Proposed Layout, Benhall Mill Cemetery Depot, Dwg. 20.013 - SK002.1 Rev - Initial March 2020,* London: On Architecture.

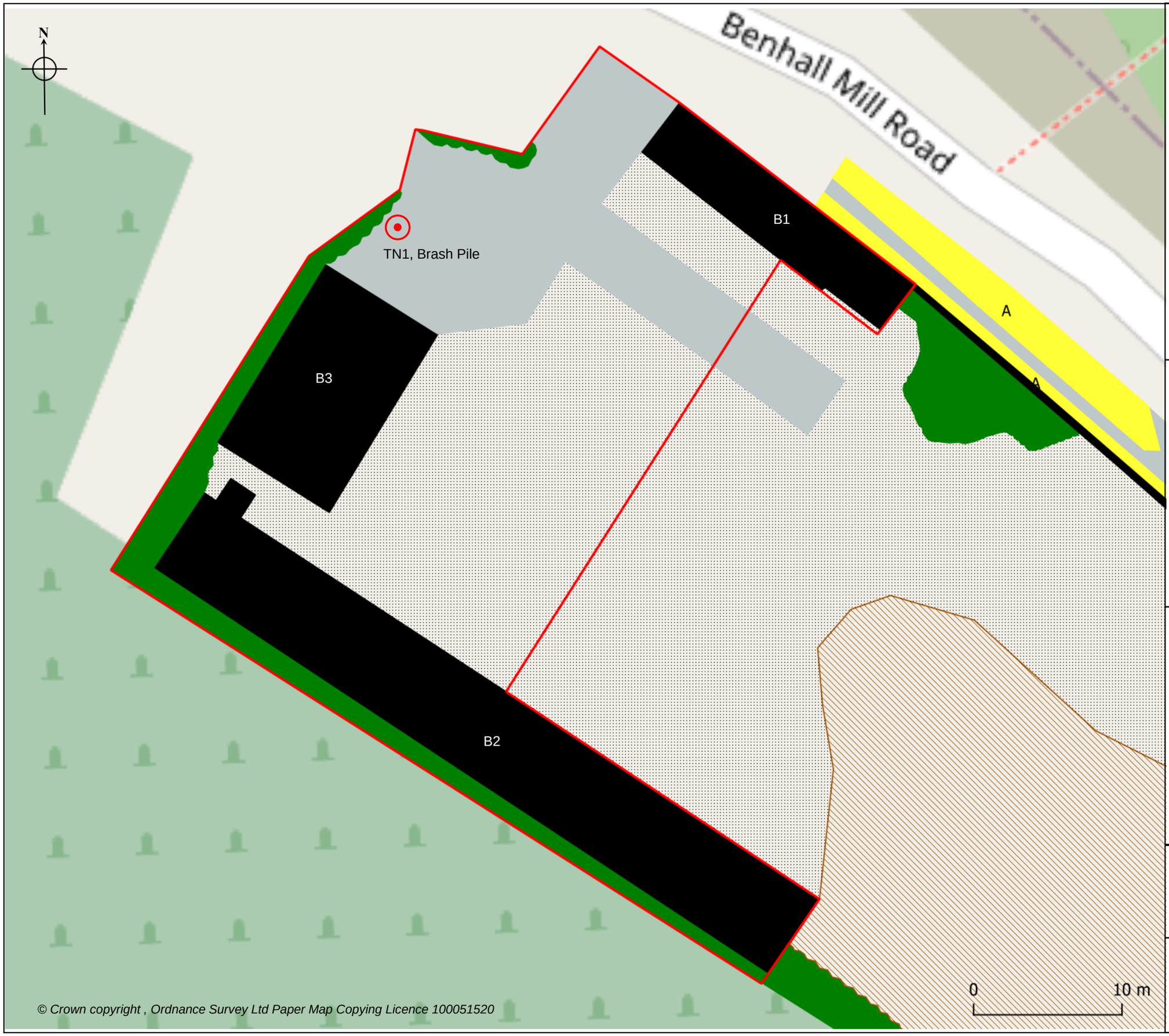
The Barn Owl Trust, 2010. *Survey techniques: Leaflet no. 8.* Ashburton, Devon: The Barn Owl Trust.

Tunbridge Wells BC, 2020. *Planning Applications Portal,* s.l.: Tunbridge Wells Borough Council.

TWBC, 2006. *Tunbridge Wells Borough Local Plan,* Royal Tunbridge Wells: Tunbridge Wells Borough Council.

TWBC, 2008. *Tunbridge Wells Local Biodiversity Action Plan,* Tunbridge Wells: Tunbridge Wells Borough Council.

Appendix 1 Habitat Map



Legend

- Red Line
- Hard standing
- Bare Ground
- Buildings
- Hedges
- Target Note

Project

Cemetry Depot (West, Benhall Mill Road, Tunbridge Wells. TN2 5JH

Title

Habitat Map

Client

Tunbridge Wells Borough Council

agb Environmental Ltd
1 The Mill. Copley Business Park,
Babraham Road, Cambridge. CB22 3GN
Tel: 01638 663 226
Email: Info@agbenvironmental.co.uk
Web: www.agbenvironmental.co.uk

Date 2nd June 2021

Scale NTS

Project number . Drawing number

P2829.5.1

Appendix 2 Legislation & Planning Policy

Legislation

Conservation of Habitat and Species Regulations (as amended)

The *CHSR 2017* transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

Wildlife & Countryside Act (WCA)

The *WCA 1981*, as amended by the *Countryside and Rights of Way Act (CRoW) 2000* and the *Natural Environment and Rural Communities Act (NERC) 2006*, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

Natural Environment & Rural Communities (NERC) Act

The *NERC Act 2006* amends the *CRoW Act*, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection
Birds	Protection under the *Wildlife and Countryside Act, 1981 (as amended)*.	It is an offence to: • intentionally kill, injure or take any wild bird. • intentionally take, damage or destroy nests in use or being built (including ground nesting birds). • intentionally take, damage or destroy eggs. • Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests.
Bats	European protected species under the *Conservation of Habitats and Species Regulations 2017*. Full protection under *Schedule 5* of the *Wildlife and Countryside Act, 1981 (as amended).* Protected by the *Wild Mammals (Protection) Act 1996*.	It is an offence to: • intentionally kill, injure, or take any species of bat. • intentionally or recklessly disturb bats. • intentionally or recklessly damage destroy or obstruct access to bat roosts.
Wild Mammals	The *Wild Mammals (Protection) Act 1996*.	This makes it an offence to: • crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering. This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery.

National Planning Policy

National Planning Policy Framework (NPPF)

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications (MHC&LG, 2019). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

The NPFF works in conjunction with Government Circular *06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System*.'

Regional and Local Planning Policy and Guidance

Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC act.

Kent Biodiversity Action Plan

The Local Habitat and Species Action Plans were first produced in 1999, with subsequent revisions. A list of all species for Kent are listed online at https://www.medway.gov.uk/downloads/file/279/kent_biodiversity_action_plan (last visited 16th October 2020).

UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).

Natural England Standing Advice

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

Appendix 3 Characterising the Suitability of Habitats for Bats

Table A3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Negligible roosting suitability	Negligible habitat features within the site likely to be used by roosting bats.
Low roosting suitability	A structure with one or more features that could be opportunistically used by individual bats. Unlikely to support maternity or hibernation roosts.
Moderate roosting suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat (unlikely to support roosts of high conservation status).
High roosting suitability	A structure 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.
Confirmed roost	Evidence of bat occupation found.

Table A3.2: Classifying the suitability of bat foraging and commuting habitat (Collins, 2016).

Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated or poorly connected to habitat in the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens. Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub grassland and water.
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, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by commuting bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Appendix 4 Notable Bird Species Recorded Within 2km of the Site

Table A4: Protected and endangered bird species recorded within 2km of the site.

Common Name	Scientific Name	Designation(s)	Date of Most Recent Record
Brambling	*Fringilla montingilla*	WCA1[4]	2015
Common Crossbill	*Loxia curvirostra*	WCA1	2011
Common Tern	*Sterna hirundo*	BD1[5]	2017
Cuckoo	*Cuculus canorus*	BRed[6]	2012
Dartford Warbler	*Sylvia undata*	WCA1, BD1	2015
Fieldfare	*Turdus pilaris*	WCA1, BRed	2017
Goshawk	*Accipiter gentilis*	WCA1	2017
Green Sandpiper	*Tringa ochropus*	WCA1	2013
Grey Wagtail	*Motacilla cinerea*	BRed	2015
Herring Gull	*Larus argentatus*	BRed	2017
Honey Buzzard	*Pernis apivorus*	WCA1, BD1	2017
House Sparrow	*Passer domesticus*	BRed	2017
Kingfisher	*Alcedo atthis*	WCA1, BD1	2016
Lapwing	*Vanellus vanellus*	BRed	2012
Lesser Redpoll	*Carduelis cabaret*	BRed	2013
Linnet	*Carduelis cannabina*	BRed	2012
Little Egret	*Egretta garzetta*	BD1	2012
Marsh Tit	*Parus palustris*	BRed	2017
Mistle Thrush	*Turdus viscivorus*	BRed	2017
Peregrine	*Falco peregrinus*	WCA1, BD1	2015
Red Kite	*Milvus milvus*	WCA1, BD1	2017
Redwing	*Turdus iliacus*	WCA1, BRed	2017
Song Thrush	*Turdus philomelos*	BRed	2017
Spotted Flycatcher	*Muscicapa striata*	BRed	2010
Starling	*Sturnus vulgrais*	BRed	2017
Turtle Dove	*Streptopelia turtur*	BRed	2013
Yellowhammer	*Emberiza citrinella*	BRed	2012

[4] Wildlife & Countryside Act (1981): Schedule 1i
[5] Birds Directive: Annex 1
[6] Birds of Conservation Concern 4 (BoCC4): Red Listed

Appendix 5 Bat Survey Raw Data

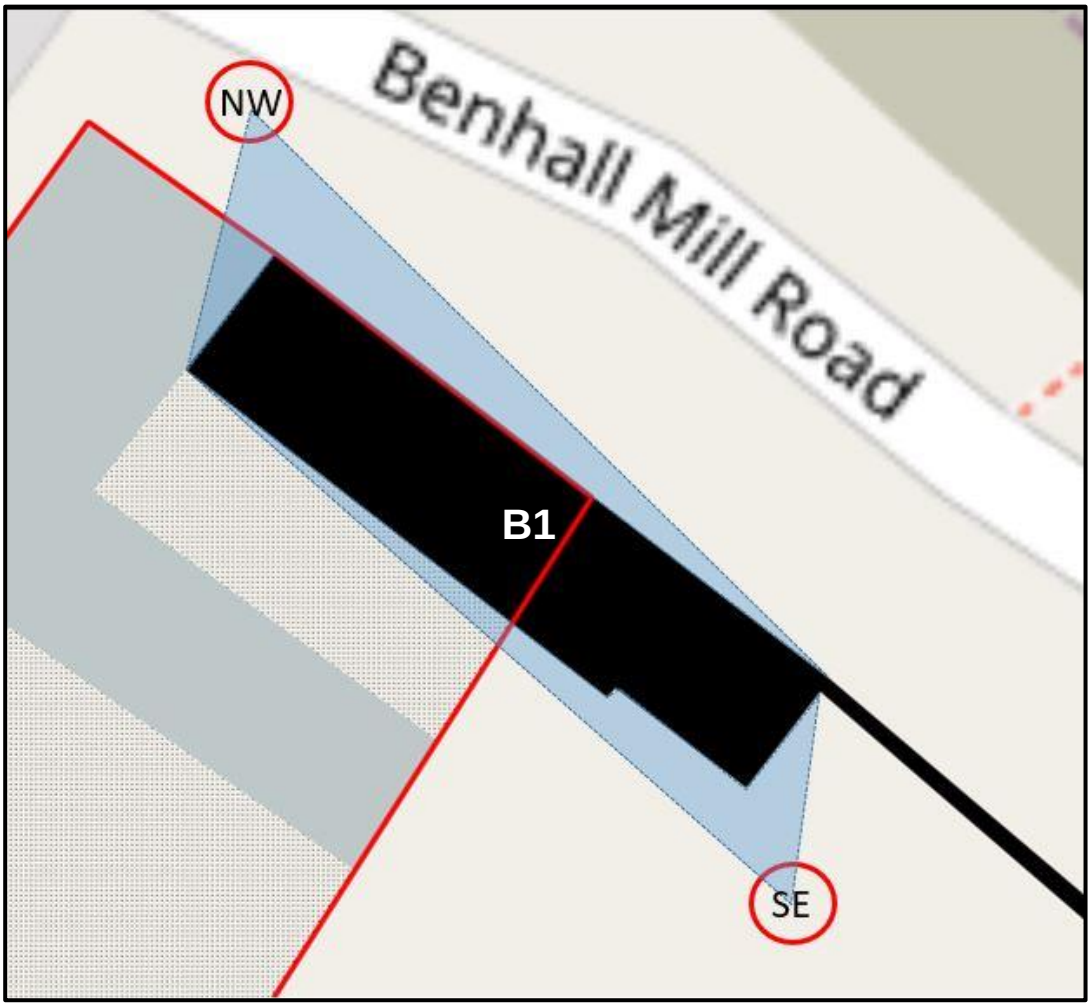


Figure A5.1 Map of the two surveyors at north west (NW) and south east (SE) locations of B1 (2020).

Table A5.1 Summary of bat activity recorded on 2nd July 2020.

Station	Time	Species	Triggers	Comments
NW	21:37	*P. pipistrellus*	2	SNH flying across road SW to NE. Slow bouncy flight.
SE	21:37	*P. pipistrellus*	1	Flew W to E from other side of B1.
SE	21:40	*P. pipistrellus*	1	HNS
SE	21:41	*P. pipistrellus*	1	Frequent faint calls - foraging.
NW	21:45	*P. pipistrellus*	1	Flew in from behind survey station W then turned S towards main gate.
NW	21:49	*P. pipistrellus*	1	HNS
SE	21:50	*P. pipistrellus*	1	HNS possibly on road.
SE	21:51	*P. pipistrellus*	4	Foraging up and down road and over site to E of B1 and up to 'B' on S boundary.
NW	21:59	*P. pipistrellus*	2	HNS
NW	22:01	*P. pipistrellus*	1	HNS
NW	22:02	*P. pipistrellus*	3	Flying E to W within site.
NW	22:03	*P. pipistrellus*	1	HNS
NW	22:04	*P. pipistrellus*	1	HNS

Station	Time	Species	Triggers	Comments
NW	22:05	*P. pipistrellus*	2	HNS
NW	22:09	*P. pipistrellus*	2	Flying over road - foraging.
SE	22:09	*P. pipistrellus*	1	Briefly foraged - HNS.
SE	22:11	*P. pipistrellus*	1	Faint call - HNS.
SE	22:21	*N. noctula*	2	HNS. Distant call.
NW	22:22	*N. noctula*	1	HNS
SE	22:22	*N. noctula*	1	HNS.
NW	22:29	*P. pipistrellus*	2	HNS
NW	22:30	*P. pipistrellus*	1	HNS
NW	22:34	*P. pipistrellus*	1	HNS
NW	22:39	*P. pipistrellus*	1	HNS
NW	22:40	*P. pipistrellus*	2	HNS
NW	22:43	*P. pipistrellus*	1	HNS
SE	22:43	*P. pipistrellus*	1	Faint call - HNS.
SE	22:45	*P. pipistrellus*	1	Faint call - HNS.
SE	22:46	*P. pipistrellus*	2	Faint call - HNS.
NW	22:47	*P. pipistrellus*	1	HNS

Table A5.2 Summary of bat activity recorded on 16th July 2020.

Station	Time	Species Text	Triggers	Activity / Comments
SE	20:53	*P. pipistrellus*	1	HNS
NW	21:37	*P. pipistrellus*	1	Flying E to W towards survey station.
SE	21:40	*P. pipistrellus*	7	Flew from W then foraged over site.
SE	21:41	*P. pipistrellus*	1	HNS
NW	21:42	*P. pipistrellus*	1	HNS
SE	21:42	*P. pipistrellus*	6	HNS
NW	21:43	*P. pipistrellus*	1	HNS
SE	21:43	*P. pipistrellus*	7	Flew from W end of building, foraged briefly on site then flew N across road.
NW	21:44	*P. pipistrellus*	1	HNS
NW	21:45	*P. pipistrellus*	1	HNS
SE	21:45	*P. pipistrellus*	6	Foraging over site.
NW	21:46	*P. pipistrellus*	2	HNS
SE	21:46	*P. pipistrellus*	5	Foraging over site.
NW	21:47	*P. pipistrellus*	1	Flying E to W from oak tree towards survey station.
SE	21:47	*P. pipistrellus*	1	Foraging over site.
SE	21:48	*P. pipistrellus*	2	Foraging over site.
NW	21:50	*P. pipistrellus*	1	HNS
NW	21:51	*P. pipistrellus*	1	Flying E to W from oak tree towards survey station.
SE	21:51	*P. pipistrellus*	6	Foraging over site.
NW	21:52	*P. pipistrellus*	1	HNS.

Station	Time	Species Text	Triggers	Activity / Comments
SE	21:52	*P. pipistrellus*	3	Foraging over site.
NW	21:53	*P. pipistrellus*	1	Flying from woodland E to W.
NW	21:54	*P. pipistrellus*	4	E to E along B1 wall.
SE	21:54	*P. pipistrellus*	4	Foraging over site and along road.
NW	21:55	*P. pipistrellus*	1	Flying from woodland E to W.
SE	21:55	*P. pipistrellus*	6	HNS
NW	21:56	*P. pipistrellus*	2	NE to SW over B1 roof.
SE	21:56	*P. pipistrellus*	1	HNS
NW	21:59	*P. pipistrellus*	1	HNS
NW	22:02	*P. pipistrellus*	1	HNS
SE	22:02	*P. pipistrellus*	2	HNS
NW	22:04	*P. pipistrellus*	3	HNS
NW	22:05	*P. pipistrellus*	1	Two seen flying E to W, one flew over B1 and second flew N.
SE	22:05	*P. pipistrellus*	2	Foraging over site.
NW	22:06	*P. pipistrellus*	4	Flying W to E towards woodland.
SE	22:06	*P. pipistrellus*	5	HNS
NW	22:07	*P. pipistrellus*	1	HNS
SE	22:07	*P. pipistrellus*	2	HNS
SE	22:08	*P. pipistrellus*	1	HNS
NW	22:10	*P. pipistrellus*	2	HNS
SE	22:10	*P. pipistrellus*	2	Foraging over site and social call?
NW	22:12	*N. noctula*	3	HNS
SE	22:12	*N. noctula*	2	HNS
NW	22:13	*P. pipistrellus*	1	HNS
NW	22:14	*P. pipistrellus*	6	HNS
NW	22:15	*P. pipistrellus*	3	HNS
NW	22:16	*P. pipistrellus*	1	HNS
NW	22:18	*P. pipistrellus*	2	HNS
NW	22:20	*P. pipistrellus*	1	HNS
NW	22:21	*P. pipistrellus*	2	HNS
NW	22:22	*P. pipistrellus*	1	HNS
SE	22:22	*P. pipistrellus*	1	HNS
NW	22:23	*P. pipistrellus*	1	HNS
NW	22:24	*P. pipistrellus*	3	HNS. Very fast and loud.
NW	22:25	*P. pipistrellus*	1	HNS
NW	22:26	*P. pipistrellus*	3	HNS
NW	22:27	*P. pipistrellus*	2	HNS
NW	22:28	*P. pipistrellus*	2	HNS
NW	22:29	*P. pipistrellus*	4	HNS
NW	22:30	*P. pipistrellus*	1	HNS

Station	Time	Species Text	Triggers	Activity / Comments
NW	22:31	*P. pipistrellus*	2	HNS
NW	22:32	*P. pipistrellus*	3	HNS
NW	22:33	*P. pipistrellus*	4	HNS. Several passages.
NW	22:34	*P. pipistrellus*	3	HNS

Table A5.3 Summary of bat activity recorded on 4th August 2020.

Station	Time	Species Text	Triggers	Activity / Comments
NW	04:23	*P. pipistrellus*	1	HNS. Very brief passage.
NW	04:24	*P. pipistrellus*	1	HNS.
NW	04:30	*P. pipistrellus*	4	HNS. Several passages.
NW	04:31	*P. pipistrellus*	6	HNS.
SE	04:31	*P. pipistrellus*	1	HNS
NW	04:32	*P. pipistrellus*	1	HNS.
SE	04:33	*P. pipistrellus*	2	HNS
NW	04:34	*Pipistrellus* sp.		SNH. Fast flight SE, disappeared over corner of B1.
SE	04:34	*P. pipistrellus*	1	HNS
NW	04:42	*P. pipistrellus*	2	HNS. Very brief and faint passage.
NW	04:48	*P. pipistrellus*	3	HNS. Very brief and faint passage.
SE	04:48	*P. pipistrellus*	1	Flew S to N across end of building and across road.
SE	04:49	*P. pipistrellus*	1	HNS
SE	05:11	*P. pipistrellus*	1	HNS

Table A5.4 Summary of SMZC static bat detector activity recorded between 16th July to 4th August 2020.

Station	Time	Species Text	Triggers	Activity / Comments
Loft space	N/A	N/A	N/A	No bats.

Appendix 6 Wildlife-Friendly Planting

Table A6.1: Native and wildlife-friendly shrubs (Natural England, 2008).

Common Name	Scientific Name
Hazel	*Corylus avellana*
Elder	*Sambucus nigra*
Goat willow	*Salix caprea*
Hawthorn	*Crataegus monogyna*
Dog rose	*Rosa canina*
Guelder rose	*Viburnum opulus*
Gorse	*Ulex europaeus*
Broom	*Cytisus scoparius*
Wayfaring tree	*Viburnum lantana*
Shrubby cinquefoil	*Potentilla fruticosa*
Raspberry	*Rubus idaeus*
Alder buckthorn	*Frangula alnus*
Wild privet	*Ligustrum vulgare*
Barberry	*Berberis × stenophylla*
Barberry	*Berberis vulgaris*
Bell heather	*Erica cinerea*
Bilberry	*Vaccinium myrtillus*
Black currant	*Ribes nigrum*
Blackthorn	*Prunus spinosa*
Buckthorn	*Rhamnus catharticus*
Butcher's-broom	*Ruscus aculeatus*
Cowberry	*Vaccinium vitis-idaea*
Cross-leaved heath	*Erica tetralix*
New Zealand holly	*Olearia macrodonta*
Daphne	*Daphne odora*
Dogwood	*Cornus sanguinea*
Field rose	*Rosa arvensis*
Firethorn	*Pyracanthus angustifolia*
Flowering Currant	*Ribes sanguineum*
Gooseberry	*Ribes uva-crispa*
Hebe 'Midsummer Beauty'	*Hebe* sp.
Holly	*Ilex aquifolium*
Japanese quince	*Chaenomeles japonica*
Lilac	*Syringa vulgaris*
Mexican orange	*Choisya ternata*
Midland hawthorn	*Crataegus laevigata*
Oregon grape	*Mahonia aquifolium*
Osier	*Salix viminalis*
Portugal laurel	*Prunus lusitanica*
Privet	*Ligustrum ovalifolium*
Purple willow	*Salix purpurea*
Snowy mespilus	*Amelanchier canadensis, Amelanchier lamarckii*
Spindle	*Euonymus europaeus*
Spurge laurel	*Daphne laureola*
Sweet briar	*Rosa rubiginosa*
Wild privet	*Ligustrum vulgare*

Table A6.2: Native and wildlife-friendly trees (Natural England, 2008).

Common Name	Scientific Name
Pedunculate oak	*Quercus robur*
Ash	*Fraxinus excelsior*
Wych elm	*Ulmus glabra*
Whitebeam	*Sorbus aria agg.*
Rowan	*Sorbus aucuparia*
Aspen	*Populus tremula*
Apple	*Malus domestica*
Bird cherry	*Prunus padus*
Common alder	*Alnus glutinosa*
Crab apple	*Malus sylvestris*
Crack willow	*Salix fragilis*
Downy birch	*Betula pubescens*
Field maple	*Acer campestre*
Hornbeam	*Carpinus betulus*
Juniper	*Juniperus communis*
Large-leaved lime	*Tilia platyphyllos*
Small-leaved lime	*Tilia cordata*
Pear	*Pyrus communis*
Scots pine	*Pinus sylvestris*
Sessile oak	*Quercus petraea*
Silver birch	*Betula pendula*
Sweet chestnut	*Castanea sativa*
Wild cherry	*Prunus avium*
Wild service-tree	*Sorbus torminalis*
Yew	*Taxus baccata*