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Job Name: **Land at Gate Cottage, The Street Thakeham, West Sussex**
Reference **DC/24/0070**
Date: **16th December 2024**
Prepared By: **Alexia Tamblyn**
Subject: **Technical Response – Place Services 3rd December 2024**

This technical response has been produced in response to Place Services and relates to the comments regarding the ecological reports for the development on land at Gate Cottage, The Street, Thakeham, under planning reference DC/24/0070 as issued on the 3rd December 2024.

The consultation responses are shown in italics, with the Ecology Partnership's response below.

European Protected Species (Hazel Dormouse)

As the original Preliminary Ecological Appraisal relating to surveys undertaken in 2020 has not been submitted for this application, we are unable to review the information provided in the Technical Response (The Ecology Partnership July 2024). This states that the site has not materially altered since these surveys and that protected species such as Hazel Dormouse are not likely to be present. Therefore, further information is required regarding the presence or likely absence of Hazel Dormouse as advised in Government Standing Advice.

The technical note reviews previous site surveys and identified that the site 'did not support scrub or stratified woodland habitat, or was connected to such habitat, and as such, dormice were considered unlikely to be present on site.' Indeed the previous survey review identified that the site support short species poor grassland and a line of trees, with short perennial vegetation. This is clear within the technical note. The photographs provided clearly show the habitats present on site. Furthermore, the update assessment identified grassland at the top of the bank and mown grassland at the base of the bank.

The habitats on site do not support habitats which are associated with dormice. The small scale nature of the build, the lack of suitable habitats, the managed nature of the site, are not considered to be suitable for dormice. No further surveys are recommended. The proposals for the site are not considered to impact upon the ecological functionality of the wider landscape and do not result in the fragmentation of woodland or linear habitats.

Protected species (reptiles)

We also note from the Site Review in the Further Surveys (The Ecology Partnership, July 2022) that sensitive clearing of the grassland and tall ruderal habitat should be undertaken due to the potential presence of reptiles,

although the conclusions state that reptiles are not considered likely to be present. Therefore, we request that the presence or likely absence of reptiles on the site should be clarified as advised in Government Standing Advice.

The site is reasonably managed, with mown grassland adjacent to the access road to the farm, and the remaining site is subject to maintenance due to its location adjacent to a farm entrance. The site was considered to be largely suboptimal for reptiles due to the management, however, edge habitats, notably at the top of the bank adjacent to the off site field networks and adjacent to the cottage to the north, supported slightly longer sward. These habitat features are not present across the whole of the site and are limited in nature and extent. It was considered that due to the limited nature of the habitats on site, that reptile surveys would be disproportionate. Sensitive clearance, considering the site undergoes management, was considered proportionate. Furthermore, the 2km records search conducted in support of the 2020 PEA did not identify any records of reptiles within the last 10 years within 2km of the red line boundary.

The photographs within the technical report issued in July 2024, clearly show the extent of on site habitats.

Mitigation and enhancement measures

In addition, the mitigation and enhancement measures in the original Preliminary Ecological Appraisal referred to in the Technical Response (The Ecology Partnership July 2024) are not available for review. We therefore request that either the original Preliminary Ecological Appraisal relating to surveys undertaken in 2020 is submitted for this application or that new surveys are undertaken and the results submitted to the LPA prior to determination.

The 2020 report is attached. The mitigation measures included in this report; sensitive clearance for reptiles, [redacted], removal of vegetation to avoid nesting bird season, further surveys on the ash tree (for bats), which have since been conducted. These are all standard working practises. A CEMP can be conditioned to support the application.

It must be noted that the site is small, and impacts resulting from habitat loss, which has been identified as habitats common and widespread, are not considered significant. The site does not support complex habitats and the development itself will not result in any fragmentation of protected habitats or significant ecological features. Mitigation measures are standard in relation to the impacts identified.

As a competent authority, the Local Planning Authority, should have regard to the requirements of The Conservation of Habitats and Species Regulations 2017 (as amended) when reaching planning decisions and must

not leave this until the licence application stage (based on the judgement in the Hack Green Group (Appellant) v Cheshire East Council [2006] - APP/R0660/W/15/3131662). Therefore, if a European Protected Species Mitigation Licence is required for this application, appropriate mitigation measures to support the provision of the licence must also be outlined prior to determination to allow certainty to the LPA that a licence will likely be granted

This information is therefore required to provide the LPA with certainty of impacts on legally protected species and be able to secure appropriate mitigation either by a mitigation licence from Natural England or a condition of any consent. This will enable the LPA to demonstrate compliance with its statutory duties, including its biodiversity duty under s40 NERC Act 2006 (as amended) and prevent wildlife crime under s17 Crime and Disorder Act 1998.

Therefore, we recommend that a suitability qualified ecologist should submit an updated report on protected and Priority species & habitats following a site visit with any further mitigation measures or surveys which are required.

An EPS licence is currently not required. There are no habitats for dormice. There is one low potential ash tree adjacent to the site which has previously been surveyed and is shown not to support bats. [redacted]. Limited potential for common reptiles. The habitats on site are common and widespread and managed. There has been no recommendations for licensing and the base line for the site has been adequately addressed.

The July 2024 survey was an update survey. This site was visited by a suitably qualified ecologist. Indeed the site has now been surveyed a number of times by qualified ecologists who all confirm there are no protected species using the site and that the development is not considered significant or likely to impact upon protected species on site or in the wider landscape.

Compensatory planting

In addition, we note from the Technical Response (The Ecology Partnership July 20240) that several Ash and Sycamore trees along the bank identified as having low bat roost potential had been removed since the surveys in July 2022. Therefore, compensatory planting of an appropriate number of trees will be required in accordance with UK Bat MItigation Guidelines. CIEEM (Reason and Wray, 2023). The details should be secured through a condition of any consent.

This is fine.

Bespoke species enhancements

We also recommend that reasonable biodiversity enhancements should be identified and implemented to secure net gains for biodiversity, as outlined under Paragraph 180d and 186d of the National Planning Policy Framework (December 2023). The reasonable biodiversity enhancement measures should be outlined within a Biodiversity Enhancement Strategy and should be secured by a condition of any consent.

This can be conditioned.

Additional information

We note from the Technical Response (The Ecology Partnership July 2024) that the mature Beech tree and two Ash trees are to be retained. The Ash tree which underwent emergence surveys in 2022 has been identified as having low bat roost potential (Potential Roost Features for individual bats – _PRFs-I) and is outside the red line boundary. Therefore no further surveys for bats are required for these trees.

Yes – this tree is to be retained and has been previously surveyed.

The site lies approximately 9.6km from The Mens Special Area of Conservation (SAC) for which one of the qualifying features is Barbastelle bats. Therefore, the site lies within the 12km Wider Conservation Area for the SAC (Sussex Bat Special Area of Conservation Planning and Landscape Scale Enhancement Protocol) and therefore may be within the range of foraging areas required by the bats. The LPA will need to prepare a project level HRA to assess the likely effects from this development on the bats of the Sussex bat SACs.

A review of impacts from the development has been made in the technical note. This is a small site, development is for two cottages, set within a managed area within a village. The proposals do not impact upon the ecological functionality of the landscape, they do not result in the loss of woodland, significant linear features, and whilst there has been several trees removed from the bank, this has not resulted in significant canopy cover or impacted on the landscape, i.e. the loss of several trees and the construction of two cottages, will not impact upon the landscape in such a way that would impact upon the integrity of the Sussex Bat SACs, which are 9.6km from the red line boundary.

Please take this review and attached old PEA, previous survey work, as sufficient information to support the application. There is no requirement for any further protected species survey work, the habitats are common and widespread, and are limited in nature, extent and in species composition. The redevelopment of the site will not impact on protected species on site or within the wider landscape, will not impact upon the ecological functionality of the landscape or impact upon The Mens, 9.6km from the red line boundary.

Appendix 1: PEA 2020

the ecology partnership

Preliminary Ecological Appraisal

Land South of Gate Cottage, Thakeham, Horsham District

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Thakeham Farms to undertake a preliminary ecological appraisal (PEA) of land south of Gate Cottage, Thakeham, Horsham District.

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

1.3 This report comprises the:

- Legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development (Section 4);
- An impact assessment (Section 5); and
- Conclusions (Section 6).

Site Context and Status

1.4 The site comprised a small area of land comprised of species-poor grassland, ephemeral/short perennial and tall ruderal vegetation, with scattered trees along a steep bank at the east of the site. The site covers *c*. 0.13ha and is located immediately south of the village of Thakeham in the Horsham District of West Sussex (TQ 10956 17199). The site is bound by the village pastoral farmland to the west, mature trees to the south, The Street (road) to the east, and, the garden of Gate Cottage to the north. The wider surrounding area is largely comprised of agricultural land, with patches of deciduous woodland, and, the small residential village of Thakeham to the north-west.

1.2 The approximate red line boundary of the site is shown in Figure 1 below.



Figure 1: Approximate location of the red line boundary showing the wider landscape. Captured from Google Earth Pro on 3rd September 2020

Description of Proposed Development

1.5 Proposals are for two semi-detached properties to be built into the bank. This will require the loss of at least seven trees in the east of the site. Mature trees along the north-western and south-eastern boundaries are to be retained.

Planning Policies

1.6 The outline application was assessed against policy guidance provided by the National Planning Policy Framework, as well as relevant planning policies from Horsham District Council. These policies included the following which are considered relevant to Ecology, Biodiversity and Nature Conservation within the Horsham District Planning Framework 2015:

- Policy SD6 Landscape Buffer, Landscape Character, Biodiversity and Green Infrastructure;

- Policy 25: The Natural Environment and Landscape Character; and, Policy 31 Green Infrastructure and Biodiversity.

1.7 This report addresses the site in relation to nature conservation and wildlife and indeed to the local planning requirements as well as national planning and nature conservation legislation.

1.8 The site was surveyed to assess its ecological value and to ensure compliance with national and local plan policies. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practise for Planning and Development.

1.9 Due to the location of the site within 10km of The Mens Special Areas of Conservation (SAC) there are further specialised policies within the South Downs Local Plan (SDLP) that are applicable to the site. This SAC supports internationally important populations of bats, namely barbastelle (*Barbastella barbastellus)* and Bechstein's (*Myotis bechsteinii).*

1.10 In the SDLP, Strategic policy SD10: International Sites refers specifically to these three SACs, as below:

The Mens SAC, Ebernoe Common SAC and Singleton & Cocking Tunnels SAC

1. *Development proposals on greenfield sites and sites that support or are in close proximity to suitable commuting and foraging habitat (including mature vegetative linear features such as woodlands, hedgerows riverine and wetland habitats) within the following ranges as shown on the Policies Map, should have due regard to the possibility that Barbastelle and Bechstein's Bats will be utilising the site. Such proposals will be required to incorporate necessary surveys and ensure that key features (foraging habitat and commuting routes) are retained, in addition to a suitable buffer to safeguard against disturbance.*
   a) *6.5km: Key conservation area – all impacts to bats must be considered given that habitats within this zone are considered critical for sustaining the populations of bats within the SACs; and*
   b) *12km: Wider conservation area – significant impacts or severance to flightlines to be considered.*

2. *Proposed use or development of the tunnels comprising the Singleton & Cocking Tunnels SAC will be required to demonstrate that there is no adverse effect on the interest features, including hibernation habitat for Barbastelle and Bechstein's Bats, or on the integrity of the site.*

1.11 The Sussex Bat SAC Planning and Landscape Scale Enhancement Protocol goes into further details regarding requirements and assessment. The bats require access to habitats outside the boundary of the SACs, for commuting routes and foraging areas. Barbastelle bats in particular can forage up to 15km away from their roosting sites Barbastelle flight-lines and known colonies are shown in Figure 2 below.

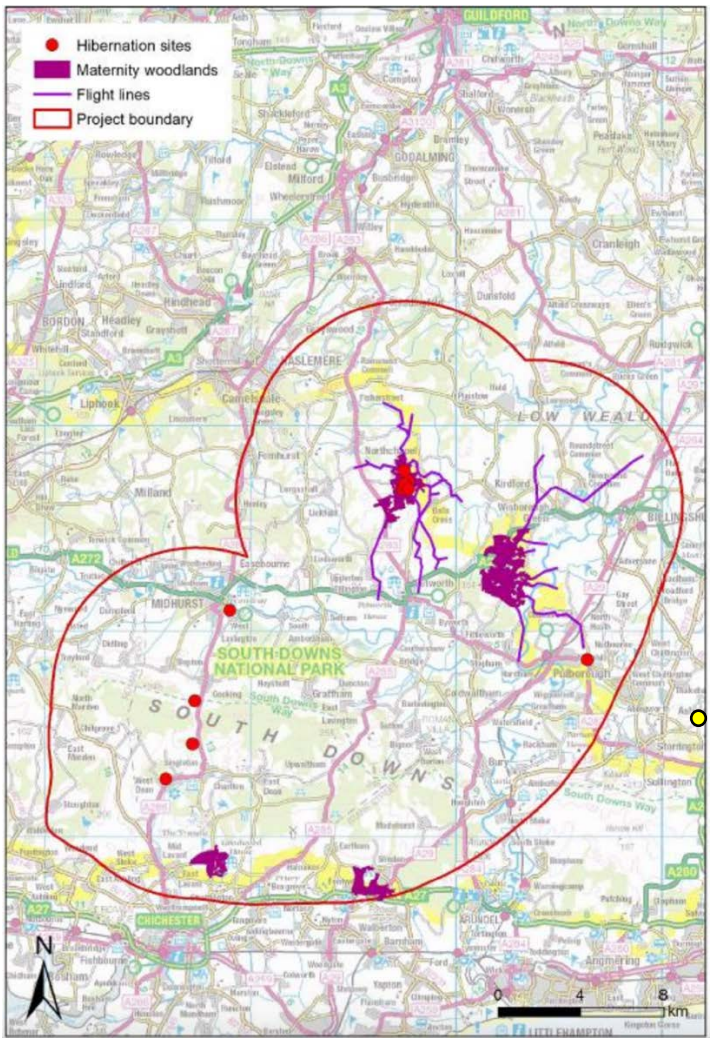


Figure 2: Barbastelle maternity wood key flight lines[1], showing approximate site boundary (Yellow circle) in relation.

[1] Scoping study for the West Sussex Bat Project - Assessing current evidence to recommend conservation measures important to barbastelle and Bechstein's bats of consequence in the project area A report to Natural England. Bat Conservation Trust 2015

2.0 Methodology

Desktop Study

2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (maps.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape. Satellite imagery, historic ecology report and recent photographs have also been used to inform the baseline of the site.

Preliminary Ecological Appraisal

2.2 An extended preliminary ecological appraisal was undertaken on 2nd September 2020 by senior ecologist Matt Pendry BSc (Hons) GradCIEEM. The surveyor identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010).

Protected Species Assessments

2.3 Any evidence of protected species was recorded. Standard methods of search and measures of presence, or likely presence based on habitat suitability were used for bats in trees and buildings (Collins 2016), breeding birds[2], dormouse (Bright *et al.* 2006), great crested newt (ARG 2010), reptiles (Froglife 2015), [redacted] (Creswell *et al*. 1990) and water vole (Strachan *et al*. 2011).

Limitations

2.4 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.

2.5 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

3.1 There are two internationally designated areas within 10km of the site, including:

- The Mens Special Area of Conservation (SAC), approximately 9.6km north-west;
    - Designated for its Atlantic acidophilous beech forests with *Ilex* (and sometimes *Taxus* in the shrub layer) and Barbastelle bats.
- Arun Valley (SAC), Special Protection Area (SPA) and Ramsar, approximately 4.8km west;
    - Designated for its importance for populations of Lesser whirlpool ram's-horn snail (*Anisus vorticulus)* and Bewick's swan (*Cygnus columbianus bewickii).*

3.2 No sites with a National Statutory Designation were located within 2km of the site.No non-statutory wildlife sites were located within 2km of the site:

3.3 A number of priority habitats are located in the surrounding area, including:

- Numerous patches of semi-natural woodland, the closest approximately 155m to the east;
- An area of ancient replanted woodland *c.* 380m south-east in Oldhouse Copse; and,
- A traditional orchard approximately 700m east.

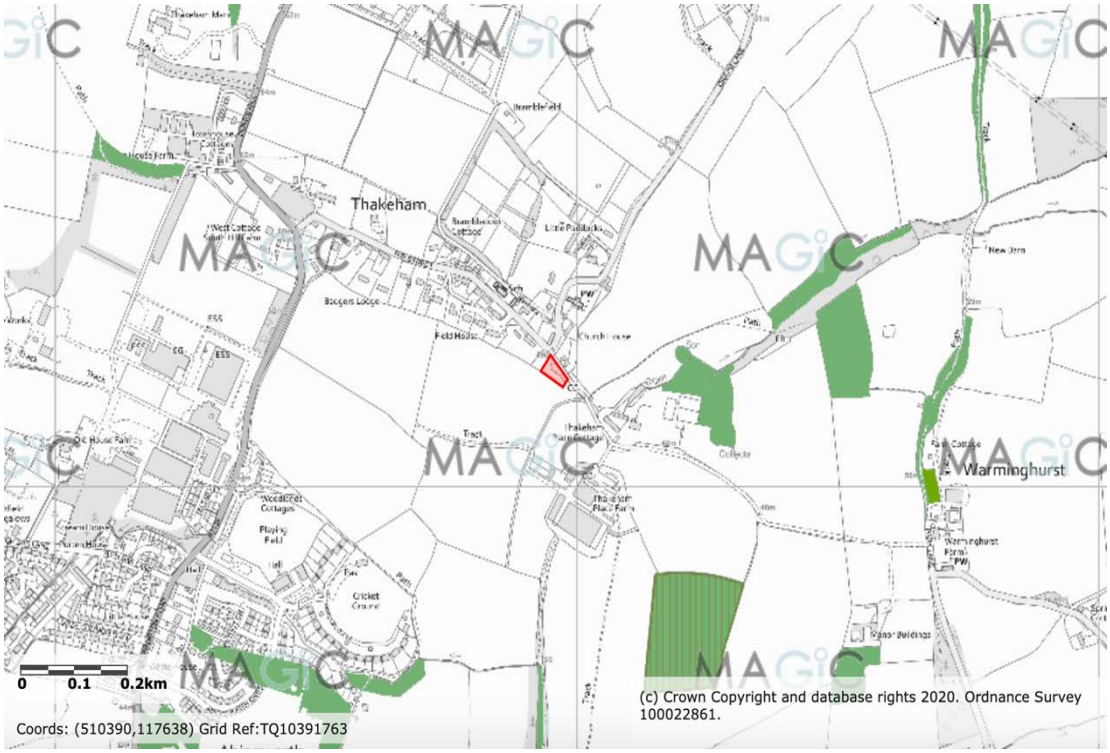


Figure 3: Priority habitats in surrounding area. Semi-natural broad-leaved woodland (dull green), ancient woodland (vertical hatches), and, traditional orchard (lime green).

3.4 OS mapping found one waterbody within 250m of the site boundary: a small spring *c.*220m east.

3.5 The search revealed two European Protected Species (EPS) licences within a 2km radius around the red line boundary:

- Existing licence (2016-2021) for damage of a breeding site and damage/destruction of a resting place for brown long-eared bat, and, common pipistrelle, 800m south-east of the site; and,
- Existing licence (2017-2022) for damage to a breeding site for brown long-eared bats, 1.4km south-east of the site.

3.6 A 2km records search was requested from the Sussex Wildlife Trust. The records closest to site, recorded within the last 10 years, and relevant to the habitats on site, have been included in Table 1 below.

Table 1: Notable species records within 2km of the site in the last 10 years (note: only species which are habitats present on site are included below)

Species	Status	Distance from site	Date of record
Hazel Dormouse *Muscardinus avellanarius* (1 record)	Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act (2006) Section 41; UK BAP Priority; Red List GB (VU)	**Closest and most recent** 2km south-west	**Closest and most recent** 22/10/2015
Serotine *Eptesicus serotinus* (6 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	**Closest/most recent** 800m south-east	**Closest/most recent** 10/07/2017
Noctule *Nyctalus noctule* (1 record)	As above	**Closest/most recent** 415m north-west	**Closest/most recent** 08/08/2014
Myotis *spp.* (1 records)	As above	**Closest/most recent** 885m north-west	**Closest/most recent** 01/06/2015
Alcathoe bat *Myotis alcathoe* (1 record)	As above	**Closest/most recent** 415m north-west	**Closest/most recent** 08/08/2014
Daubenton's Bat *Myotis daubentonii* (1 record)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 2 & 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act 2006) Section 41	**Closest and most recent** 940m south-west	**Closest and most recent** 23/07/2010
Common pipistrelle *Pipistrellus pipistrellus* (5 records)	As above	**Closest** 415m north-west **Most recent** 940m south-west	**Closest** 08/08/2014 **Most recent** 10/07/2017
Nathusius pipistrelle *Pipistrellus nathusii* (1 record)	As above	**Closest/most recent** 800m east	**Closest/most recent** 26/06/2015
Soprano pipistrelle *Pipistrellus pygmaeus* (3 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	**Closest** 800m north-west **Most recent** 815m south-east	**Closest** 01/06/2015 **Most recent** 02/07/2016
Brown Long-eared Bat *Plecotus auratus* (13 records)	Conservation of Habitats and Species Regulations (2017) Schedule 2; Habitat and Species Directive (1992) Annex 2 & 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; NERC Act 2006) Section 41	**Closest** 615m north-west **Most recent** 815m south-east	**Closest** 01/04/2015 **Most recent** 10/07/2017
Long-eared sp. *Plecotus* sp. (15 records)	As above	**Closest** 415m north-west **Most recent** 810m south-east	**Closest** 08/08/2014 **Most recent** 26/06/2015
Bullfinch *Pyrrhula pyrrhula* (12 records)	NERC Act (2006) Section 41; Red List BoCC	Within 2km	**Most recent** 28/09/2018

Starling *Sturnus vulgaris* (50 records)	NERC Act (2006) Section 41 Red List BoCC	Within 2km	**Most recent** 04/10/2018
House sparrow *Passer domesticus* (33 records)	NERC Act (2006) Section 41 Red List BoCC	Within 2km	**Most recent** 07/05/2016
Cuckoo *Cululus canorus* (7 records)	NERC Act (2006) Section 41 Red List BoCC	Within 2km	**Most recent** 29/06/2019
Dunnock *Prunella modularis* (20 records)	NERC Act (2006) Section 41 Amber List BoCC	Within 2km	**Most recent** 23/11/2018
Song thrush *Turdus philomelos* (17 records)	NERC Act (2006) Section 41 Red List BoCC	Within 2km	**Most recent** 07/12/3018

Phase 1 Habitat Survey

3.7 The site was situated on a small area of land to the south of Gate Cottage, and, comprised of a lower area of short species-poor grassland in the east bordered by a bare earth bank and line of trees to the west, and, a mix of species-poor grassland, tall ruderals and ephemeral/short perennial vegetation, introduced shrub and scattered trees in the elevated area of the site at the top of the bank.

Species-poor Semi-improved Grassland

3.8 Species-poor semi-improved grassland was present between the earth bank and the road in the east of the site, as well as on the southern area of elevated-section of the site. This area was dominated by perennial rye grass in the lower section and, both Yorkshire fog, and, creeping bent, in the upper section, with abundant false-oat grass, and, frequent annual meadowgrass and cock's-foot. Herbaceous species included occasional ribwort plantain, germander speedwell, creeping buttercup, broad-dock, and, common mallow. Individual occurrences of wild carrot, common knapweed, ox eye daisy, and, bird's-foot trefoil were also recorded, however, overall the areas were grass dominated and relatively species-poor, with indicators of nutrient enrichment such as docks and thistles.

Bare ground

3.9 The north-east-facing bank along the length of the site comprised bare ground under the canopy of the scattered trees. What sparse vegetation that was present on the bank included occasional male fern, and, ivy. Bare ground was also present in a small dirt track leading from the road into the west of the site.

Tall ruderal

3.10 An area in the west of the site was overgrown with tall ruderals, including frequent common nettle, and, creeping thistle, with occasional green alkanet, white dead nettle, and, wood dock, greater plantain, and, wood avens.

Ephemeral/short perennial

3.11 Sparse ephemeral and short perennial vegetation in an area of compacted and disturbed ground in the west of the site. This comprised occasional common knotgrass, fathen, scentless mayweed, and, common chickweed.

Introduced shrub

3.12 Remnants of planted shrubs were present in the north of the site including box-leaved honeysuckle and cherry laurel.

Tree line

3.13 A line of semi-mature and mature beech, ash and sycamore trees were present along the embankment. A silver birch and young pedunculate oak were located in the south-west of the site. The largest trees onsite were a mature beech near the north-western boundary and an over-mature ash on the south-eastern site boundary.

Protected Species

Bats

3.14 The scattered trees on site were suitable to support commuting and foraging bats, and were connected to a network of suitable commuting and foraging habitats in the wider area.

3.15 An over-mature ash on the south-eastern site boundary featured multiples holes and crevices under the bark, although did not appear to lead into a larger cavity within the tree. This may offer features of value to crevice dwelling bat species, and, as such was assessed as having moderate potential to support roosting bats. The mature beech near the north-western site boundary contained an enclosed crevice between two of the main trunks. A natural bird box comprised of a section of a birch tree trunk with a naturally occurring cavity was also attached to the tree. Both these features may offer features of value to roosting bats. This tree was determined to have low potential to support roosting bats.

[redacted]

Hazel Dormice

3.17 Dense scrub was absent from site with the tree canopy was gappy, with only fragmented connectivity to other treelines and hedges in the surrounding area. As such, it is considered that the site has negligible potential to support dormouse.

Great Crested Newts (GCN)

3.18 A single spring was recorded 230m north-east of the site with no further ponds identified within 250m of the site boundary. This waterbody is unlikely to support GCN, owing to its nature as a spring, with running water, and, is also likely dry during periods of drought. As such, the site is considered to have negligible potential to support great crested newt.

Reptiles

3.19 Semi-improved grassland and tall ruderal vegetation on site is suitable habitat to support common reptile species. The brash pile in the west of the site also could act as a suitable hibernaculum for hibernating reptiles. However, no reptile records were identified within the data search. As such, the site is considered to have low potential for reptiles.

Birds

3.20 The trees, and, shrubs on site provide suitable nesting habitat for birds.

Other Species

3.21 The brash pile on site is suitable to support hedgehog.

3.22 Owing to a lack of suitable habitat, no potential for any other protected species, such as otters and water voles, was identified within the site.

4.0 Discussion

4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Where the desk study and Phase 1 survey provide sufficient evidence for an assessment of effects on any of these

groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on statutory designated sites

4.2 The site itself is not designated for its nature conservation value, however, the site lies within the zone of influence of two sites with statutory designations: The Mens SAC/SSSI, 9.6km north-west, and, Arun Valley SAC, SPA, Ramsar, 4.8km west.

4.3 The proposed site is located 4.8km from Arun Valley SAC, SPA, Ramsar, which supports the following qualifying features; Bewick's swan (non-breeding), its waterbird assemblage (SPA) and Ramshorn snail (SAC). Due to the distances involved, the lack of supporting habitats within the development site and absence of direct habitat links and the small scale nature of the proposals, no significant impacts are anticipated on the designation of this site as a result of the development.

4.4 The site is located outside the 12km wider conservation areas of the Sussex Bats SACS, Singleton and Cocking Tunnels SAC and Ebernoe Common SAC/SSSI. However, the site is located approximately 9.6km from The Mens SAC.

4.5 With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features', here listed as *Barbastella barbastellus*; Barbastelle bat and subject to natural change;

'Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- *The extent and distribution of the habitats of qualifying species*
- *The structure and function of the habitats of qualifying species*
- *The supporting processes on which the habitats of qualifying species rely*
- *The populations of qualifying species, and,*
- *The distribution of qualifying species within the site. '*

4.6 Bats are mobile and species that are qualifying features of the SAC, may forage or roost on land outside of the SAC boundaries. Occasionally impacts to such habitats can have a significant effect upon the special interest of a European site, through an impact on conservation objective 4 (effect on the population) and 5 (the distribution of the species). Habitats used by significant numbers of qualifying features of the SAC are

defined as ***functionally linked*** to the site and so require assessment under the Habitats Directive and Regulations, as if they were within the SAC boundary (Chapman and Tyldesley, 2016).

4.7 The site lies approximately 9.6km from The Mens; therefore, falls outside of the 6.5km key conservation area of all of the Sussex bats SAC but within the 12km wider conservation area. Within the wider conservation zone, significant impacts or severance to flight lines, must be considered. Following the Sussex SAC guidance, avoidance, mitigation and compensation must be considered in relation to bats associated with the SACs.

4.8 As such, there should be no removal of key linear features. In this case, the tree lines located around the edges of the site are to be retained, with only a small number of trees to be removed allowing for development. It is considered that the small scale nature of the proposals, and the retention of the majority of the trees, would not result in any severance of flight lines.

4.9 The western edge can be enhanced for bats by providing structural and species diversity using native species planting and by managing them in such a way as to ensure this diversity is maintained.

4.10 Dark corridors must be maintained along the edges and along the linear features. Lighting can alter bat behaviour significantly in terms of light avoidance with some species unable to cross lit areas even at low light levels. In addition, lighting can affect the availability of insect prey with some groups attracted to lights, creating a 'vacuum effect' in adjacent habitats. Some of the species on site, such as brown long-ears, barbastelles and *Myotis* species, are known to avoid all street lights (Stone *et al* 2009, 2012, 2015), meaning that development could seriously impact the abundance of these species on site post-development without careful design and mitigation.

4.11 Considering the limited extent of the proposals and the distances involved between The Mens SAC and the redline boundary and if the recommendations above are followed, within any master plan, that being buffered edges, enhancements to habitat edge and consideration of lighting, then no adverse impacts would be predicted.

Effects on ancient woodland/Priority Habitats

4.12 The nearest area of priority broad-leaved woodland habitat is approximately 175m east of the site, and, the nearest area of ancient woodland is located 380m south-east, and, both appear to be located on private land. As such, the proposed small-scale development is considered unlikely to have any significant direct or indirect impact on these woodlands or other woodlands in the wider surrounding area.

Effect on on-site habitats

4.13 No habitats of principal importance were identified on site. However, the mature trees on site have some intrinsic value; with fragmented connectivity to woodlands located in the wider area; and, as such, provides some limited landscape connectivity across the site and into the wider area. Any notable habitat loss should be compensated via the planting and improvement of retained habitats within the red line boundary.

4.14 The remaining habitats present on site are common and widespread and are considered to be of site value only. As such, the loss or removal of these habitats would not be considered beyond impacts at site level and would not warrant consideration within an EcIA assessment.

4.15 The Horsham District Planning Framework 2015 policies including SD6 Landscape Buffer, Landscape Character, Biodiversity and Green Infrastructure; Policy 25: The Natural Environment and Landscape Character; and, Policy 31 Green Infrastructure and Biodiversity; should be considered as part of the master plan and will be assessed accordingly by the local planning authority. Plans should aim to conserve and mitigate against the loss of any habitat which accommodates protected species. Additionally, a net increase in biodiversity should be achieved post development

Protected Species

Bats

4.16 Most of the trees on site were considered to have negligible bat roosting potential due to lack of bat roost potential features. However, the over-mature ash on the south-eastern site boundary, had moderate potential to support roosting bats. Current proposals look to retain this tree, as such no further survey is required. However,

further bat surveys are recommended, should any future works to this tree be required.

4.17 Beech with low potential needs to be section felled if this is to be removed as this tree was considered to have 'low' potential to support roosting bats. Any tree which is considered to be a 'low' potential does not require any further survey works. However, all trees with 'low' potential roost features are to be felled in accordance with specific advice provided by the bat-worker ensuring that reasonable avoidance measures are followed. This includes:

- Re-checking the tree and any features for evidence of bats
- Areas of ivy and loose bark should be re checked and carefully removed to reveal the tree trunk below and if any features or bats present
- If evidence of bats is present then works should stop and the advice of an ecologist sought immediately
- Cavities in the trees should not be sawn through but cut above and below cavities
- Sections which support cavities should be soft felled and roped carefully down to the ground
- If a bat is found and is injured the advice of an ecologist should be sought
- If a roost is discovered and no bats are harmed, no further works should be undertaken and the advice of an ecologist sought.

4.18 It is recommended that log piles from the felling of the trees are maintained on site and stacked for enhancement purposes.

4.19 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area, as well as on site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development, avoiding use of street lighting and only installing lighting if there is a significant need.

4.20 Any necessary lighting should adhere to the following recommendations:

- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability;

- A warm white spectrum (ideally <2700Kelvin) should be adopted to reduce blue light component;
- Directing light to where it is needed and avoiding light spillage;
- Using baffled lighting where light is directed towards the ground;
- Avoid putting lighting near tree lines or hedgerows and angling light away from these linear features which are used by commuting and foraging bats;
- Planting a barrier within the scheme to form a barrier.

[redacted]

Reptiles

4.22 Grassland, tall ruderal, logs, and brash piles on site were considered suitable to support common, native species of reptile. It is recommended that the clearance of these habitats be undertaken in a sensitive manner under supervision of an ecologist.

4.23 Common reptile species are not protected under European legislation, however are protected under the Wildlife and Countryside Act 1981. It is illegal to deliberately kill or injure any common reptile species. It is recommended that an ecological watching brief is in place during the destruction of any potential reptile habitat.

4.24 Vegetation removal works should follow the following specification:

- Suitable reptile habitat removal should be carried out using hand tools only.
- Works should proceed in a linear progression, beginning at one end of the habitat working in the same direction until the other end of the habitat has been reached.
- Vegetation should be strimmed using the following method in suitable weather conditions (avoiding rain/wet conditions) under ecological supervision:
    1. Day 1: Strim to 200mm
    2. Day 2: No works to habitats
    3. Day 3: Strim to ground level

4. Day 4: No works to habitats
5. Day 5: Clearance of the habitats under ecological watching brief

- Once the vegetation is removed the habitats should be left for one day and one night to allow any reptiles or other small mammals or wildlife to leave the area prior to its removal.
- Where possible, materials and debris should be hand searched prior to destructive searching (see below) by an ecologist.
- The habitats can then be removed with a digger with a toothed bucket. This should be undertaken in a linear fashion starting from one end of the habitats and completing at the other end of the habitats. The removal of the habitats must be undertaken under ecological supervision.

4.25 Post development, the creation of log and brash piles within suitable areas of vegetation may be created for use by common reptile species as refugia. Log piles should be located in a variety of locations, such as damp places, with some situated in more sunny locations.



Figure 4: Log piles and hibernacula can be created within the edges or the retained habitats on site

Birds

4.26 All of the trees, and, shrubs on site have potential to support breeding birds. The UK breeding season for most bird species takes place between March and September. It is therefore recommended that any clearance of suitable vegetation on site be carried out outside of this period. If this is not possible, it is recommended that areas of suitable vegetation are checked by an ecologist for active nests, no more than 48 hours prior to clearance. Should active nests be identified, works must cease in the vicinity of the nest until the birds have fledged the nest.

4.27 Bird boxes can be hung on mature trees to increase the number of breeding opportunities throughout the site. Woodcrete (or similar) boxes are recommended as they provide better thermal properties, are longer lasting and more durable than wooden boxes. These should be positioned at least 2.5m from ground level, on retained mature trees on site.

Other species

4.28 Given the lack of suitable habitat on site for otters and water voles, the development is not considered to be constrained by these species and no further surveys are deemed necessary.

Invasive Species

4.29 Montbreta and variegated yellow archangel are found on earth bank (TN1/TN2) is an invasive species listed on Schedule 9 of Section 14 of the Wildlife and Countryside Act, 1981. This makes it an offence to plant it in the wild or otherwise cause it to grow. It is recommended that these are removed from the site prior to site works.

Ecological Enhancements

4.30 The site is currently considered to support habitats of ecological value, it is therefore important that significant considerations are given in the masterplan towards maintaining and enhancing on-site habitat and connectivity with the wider landscape post-development, the following include some examples. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of a development.

4.31 Insect boxes / towers, as shown below in figure 5 should be established within the site. It is considered that two of these boxes would be sufficient.



Figure 5: An insect hotel

4.32 Several small sections of lawn are to be created in the rear of the property. This turf should be seeded / turfed with a range of species for wildlife but will respond to mowing. Species present within the turf include;

- Lady's bedstraw;
- daisy;
- Birdsfoot trefoil;
- Betony;
- Common Knapweed;
- Common sorrel
- Black medick;
- Meadow buttercup;
- Slender creeping red fescue;
- Chewing's fescue;
- Sheep's fescue;
- Common meadow grass.

4.33 This mixture will provide some site level interest with regards to flowers / pollinators as well as being robust in terms of management. This turf can be purchased from

Wildflower Turf (www.wildflowerturf.co.uk) and is identified as the species rich lawn turf (Product code WFT-Species-rich-26).. Other similar products can be used.

4.34 Species which should be included in the graden planting and that provide nectar opportunities for invertebrates as well as an aesthetic appeal will be included within the planting include;

- Lavender (*Lavandula angustifolia*)
- Jasmine *Jasminum nudiflorum)*
- Chamomile (*Chamaemelum nobile)*

These plants have been chosen as they respond well to planting in small borders and within small gardens.

4.35 The use of narrow panels of trellis can be effective in creating substantial vertical habitats which do not encroach on garden ground space. Heavy duty wooden trellis between 30cm and 90cm wide is recommended as this is hardwearing and required little maintenance. These will be installed on south/south-east facing boundaries of the garden to the rear of the property where the plants may receive the most sunlight. Recommended plants and numbers of plansts for the trellis include:

- Honeysuckle *Lonicera periclymenum x 2 specimens*
- Clematis *Clematis spp x 1 specimen*
- Common jasmine *Jasminum officinale x 1 specimen*

4.36 Plants such as honeysuckle and jasmine have tubular shaped flowers which attract pollinating insects such as butterflies and moths, whilst clematis attract shorter tongued insects such as flies. Honeysuckle and jasmine are also night-scented which means that they will attract insects during bat foraging hours. This will further enhance the biodiversity of the site.

5.0 Impact Assessment

5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site, or within the local area.

Methodology

5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed and mitigation and compensation measures are outlined which help to reduce negative impacts.

5.3 The zone of influence for the development is defined as:

- The project red line, for effect on habitats and species;
- Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site;
- Up to 2km for national statutory and non-statutory designations; and,
- Up to 10km for international statutory designations.

5.4 The types of features considered in the assessment of effects, to meet legislative and policy requirements are:

- Designated sites (European, national and local);
- Protected species;
- Habitats and species of principal importance (Section 41 list);
- Hedgerows and woodland, where not of principal importance; and
- Habitats, where not if principal importance, that may function as wildlife corridors or stepping stones.

Impact Assessment and Mitigation

5.5 Table 2 below summarises the impacts and required mitigation for each receptor as previously detailed in the discussion

Table 2: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
The Mens SAC/SSSI	International	None required – considerable distance from the site, and, small scale development	Not Significant
Adur Valley SAC/SPA/Ramsar	International	None required – considerable distance from the site, and, small scale development	Not Significant
Bats	Site	Retain and protect over-mature ash on south-eastern site boundary. Soft fell mature beech with low potential in north-west of the site	Not significant
Nesting Birds	Site	Mitigating direct harm to nests by removal of any suitable habitat outside of nesting bird season or after a check by a suitably qualified ecologist Compensation in the form of the installation of bird boxes and replacement planting	Not significant
Reptiles	Site	Sensitive habitat clearance under ecologist supervision.	Not Significant

Cumulative impacts

5.6 The scheme is of such small scale that impacts resulting from development of two units would be considered imperceptible in terms of cumulative impacts within the wider landscape. As such the site can be viewed in isolation.

6.0 Conclusions

6.1 The site is not designated for its nature conservation value and does not lie adjacent to any designated sites.

6.2 The site is located 9.6km from The Mens SAC. Whilst no direct impacts are predicted on this SAC, potential indirect impacts on its qualifying feature, barbastelle bats, have to be considered. However, considering the size and scale of the development, and that much of the trees are to be retained no impacts are predicted. Sensitive lighting is recommended.

6.3 The site was situated on a small area of land to the south of Gate Cottage, and, comprised of a lower area of short species-poor grassland in the east bordered by a

bare earth bank and line of trees to the west, and, a mix of species-poor grassland, tall ruderals and ephemeral/short perennial vegetation, introduced shrub and scattered trees in the elevated area of the site at the top of the bank.

6.4 The trees were considered to be most significant in terms of value. One tree, which is due to be removed, supported 'low' potential to support roosting bats. It is recommended that this is soft felled. The moderate tree is to be retained. The majority of the trees are to be retained within the scheme.

6.5 The remaining habitats are considered common and widespread and not considered to be of significant value.

6.6 The site supports two invasive species, which are listed on schedule 9 (WCA 1981). These should be removed prior to site works.

6.7 The habitats on site are not considered suitable for amphibians (GCNs) and dormice. As such no further surveys are recommended. A small area of habitat is considered to have some suitability for reptiles. Due to the limited size, it is recommended that sensitive clearance is undertaken. Further surveys are not recommended.

[redacted]

6.9 There is potential for the proposals to impact upon nesting bird species. As such, a breeding bird survey is recommended to determine which species are using the site and in what capacity. Any vegetation clearance is recommended outside of nesting bird season to prevent disturbance.

6.10 A number of general site mitigation and enchantment measures are also recommended.

7.0 References

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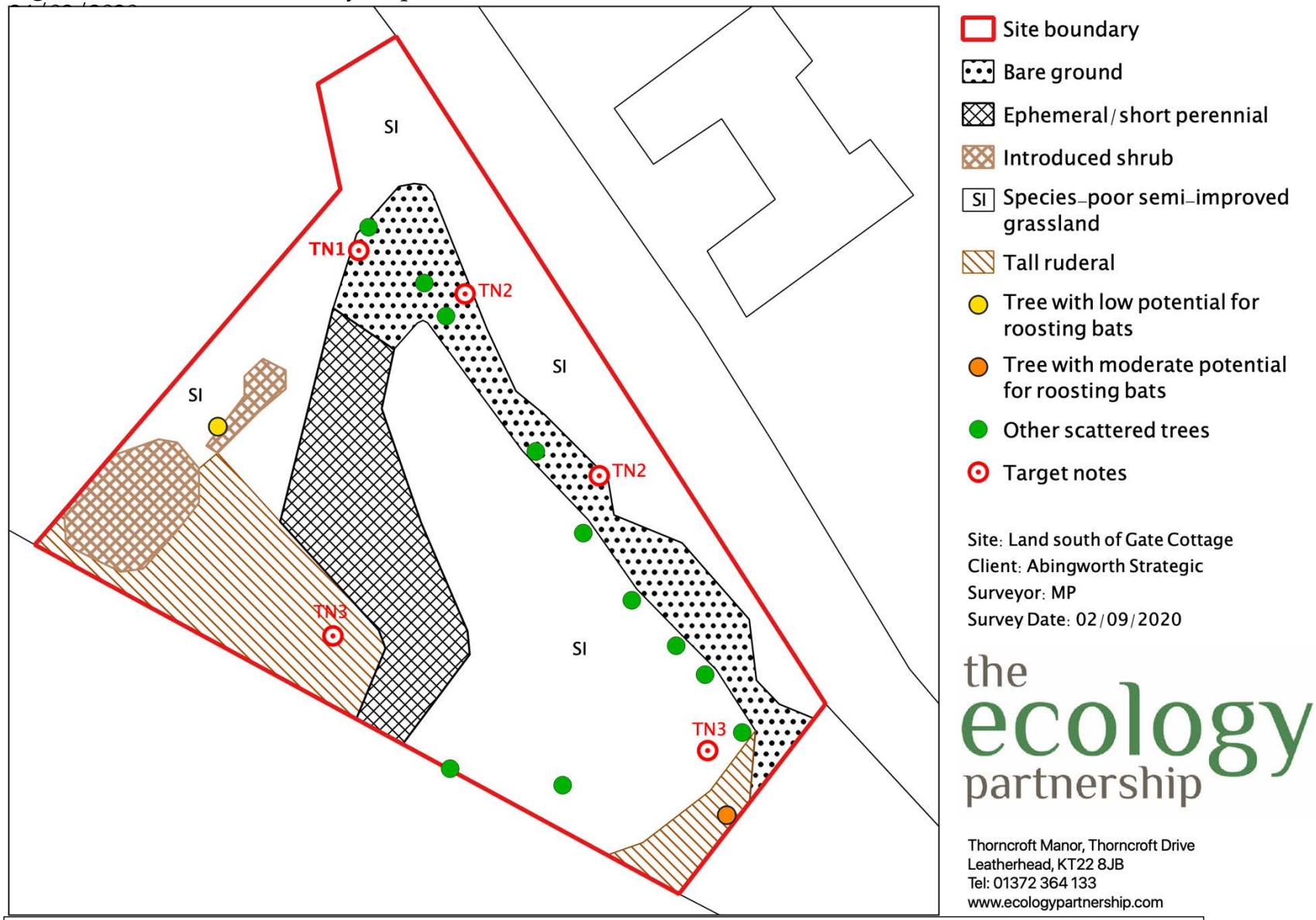
Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Habitat Map

Figure 1. Phase 1 habitat survey map based on site visit



TN1 - Montbreta; **TN2** Variegated Yellow Archangel; **TN3** Suitable reptile hibernacula.

Appendix 2: Photos

Photograph 1: Species-poor grassland and earth bank at east of site.	
Photograph 2: Variegated yellow archangel at the east of the site.	
Photograph 3: Earth bank and scattered trees at the north-east of the site, looking south.	

Photograph 4: Beech tree with low bat potential at the north-west of the site.	
Photograph 5: Small cavity in beech tree.	
Photograph 6: Species-poor grassland in the centre of the site.	

Photograph 7: Tall ruderal vegetation at the west of the site.	
Photograph 8: Brash pile in the west of the site.	
Photograph 9: Over-mature ash of moderate potential for bats. To be retained.	

Appendix 3: Species List

Species list		
Common name	**Latin name**	**DAFOR score[3]**
Perennial rye-grass	*Lolium perenne*	LD
False oat grass	*Arrhenatherum elatius*	A
Yorkshire fog	*Holcus lanatus*	A
Creeping bent	*Agrostis stolonifera*	A
Ivy	*Hedera helix*	LA
Common nettle	*Urtica dioica*	F
Ground ivy	*Glechoma hederacea*	LF
Ash	*Fraxinus excelsior*	O
Beech	*Fagus sylvatica*	O
Bramble	*Rubus fruticosus*	O
Broad-leaved dock	*Rumex obtusifolius*	O
Cock's-foot	*Dactylis glomerata*	O
Common knotgrass	*Polygonum aviculare*	O
Creeping buttercup	*Ranunculus repens*	O
Creeping thistle	*Cirsium arvense*	O
Fathen	*Chenopodium alba*	O
Germander speedwell	*Veronica chamaedrys*	O
Greater plantain	*Plantago major*	O
Green alkanet	*Pentaglottis sempervirens*	O
Male fern	*Dryopteris filix-mas*	O
Variegated yellow archangel	*Amiastrum galeobdolon* subsp. *'Argentatum'*	O
White deadnettle	*Lamium alba*	O
Wood avens	*Gerum urbanum*	O
Wood dock	*Rumex sanguinea*	O
Bittersweet	*Solanum dulcamara*	R
Borage	*Borago officinalis*	R
Box-leaf honeysuckle	*Lonicera nitida*	R
Caper spurge	*Euphorbia lathyris*	R
Cherry laurel	*Prunus laurocerasus*	R
Common bird's-foot trefoil	*Lotus corniculata*	R
Common chickweed	*Stellaria media*	R
Common figwort	*Scrophularia nodosa*	R
Common knapweed	*Centaurea nigra*	R
Common mallow	*Malva sylvestris*	R
Common ragwort	*Jacobaea vulgare*	R
Common vetch	*Vicia sativa*	R
Dandelion	*Taraxacum officinale*	R
Downy birch	*Betula pubescens*	R
Elder	*Sambucus nigra*	R
Feverfew	*Tanacetum parthenium*	R
Hart's-tongue	*Asplenium scolopendrium*	R
Hazel	*Corylus avellana*	R
Hedge woundwort	*Stachys sylvatica*	R
Herb Robert	*Geranium robertianum*	R

[3] D=Dominant; A=Abundant; F=Frequent; O=Occasional' R= Rare occurrence

Holly	*Ilex aquifolium*	R
Honeysuckle	*Lonicera periclymenum*	R
Lungwort	*Pulmonaria officinalis*	R
Montbreta	*Crocosmia* X *crocosmiflora*	R
Nipplewort	*Lapsana communis*	R
Oxeye daisy	*Leucanthemum vulgare*	R
Pedunculate oak	*Quercus robur*	R
Petty spurge	*Euphorbia peplus*	R
Poppy	*Papaver rhoeas*	R
Prickly lettuce	*Lactuca serriola*	R
Purple toadflax	*Linaria purpurea*	R
Red campion	*Silene dioica*	R
Scarlet pimpernel	*Anagallis arvensis*	R
Scentless mayweed	*Tripleurospermum inodorum*	R
Smooth sow thistle	*Sonchus oleraceus*	R
Spear thistle	*Cirsium vulgare*	R
Sycamore	*Acer pseudoplatinus*	R
Verbena	*Verbena* sp.	R
Wild carrot	*Daucus carota*	R

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Date: 17/09/2020

Appendix 2: 2022 Surveys

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Tim Binnington

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6th July 2022

Land to the south of Gate Cottage, The Street, Thakeham, RH20 3EP

The Ecology Partnership was commissioned by Tim Bininngton at Thakeham Farms to undertake further surveys as recommended within the PEA which was conducted in September 2020.

Background

The site comprised a small area of land comprised of species-poor grassland, ephemeral/short perennial and tall ruderal vegetation, with scattered trees along a steep bank at the east of the site. The site covers *c*. 0.13ha and is located immediately south of the village of Thakeham in the Horsham District of West Sussex (TQ 10956 17199). The site is bound by the village pastoral farmland to the west, mature trees to the south, The Street (road) to the east, and, the garden of Gate Cottage to the north. The wider surrounding area is largely comprised of agricultural land, with patches of deciduous woodland, and, the small residential village of Thakeham to the north-west.

The approximate red line boundary of the site is shown in Figure 1 below.

Proposals are for two semi-detached properties to be built into the bank. This will require the loss of at least seven trees in the east of the site. Mature trees along the north-western and south-eastern boundaries are to be retained.



Figure 1: Approximate location of the red line boundary showing the wider landscape. Captured from Google Earth Pro on 3rd September 2020

Site Review

The site was situated on a small area of land to the south of Gate Cottage, and, comprised of a lower area of short species-poor grassland in the east bordered by a bare earth bank and line of trees to the west, and, a mix of species-poor grassland, tall ruderals and ephemeral/short perennial vegetation, introduced shrub and scattered trees in the elevated area of the site at the top of the bank.

An over-mature ash on the south-eastern site boundary featured multiples holes and crevices under the bark, although did not appear to lead into a larger cavity within the tree. This may offer features of value to crevice dwelling bat species, and, as such was assessed as having moderate potential to support roosting bats. The mature beech near the north-western site boundary contained an enclosed crevice between two of the main trunks. A natural bird box comprised of a section of a birch tree trunk with a naturally occurring cavity was also attached to the tree. Both these features may offer features of value to roosting bats. This tree was determined to have low potential to support roosting bats.

As the ash tree is required for removal, due to the tree having ash die back, and potentially a hazard, this was recommended to be surveyed further for bats.

The mature beech tree was considered to have 'low' potential and as such no further survey work was recommended.

[redacted]

[redacted] Finally, it was recommended that sensitive clearance be undertaken in the small sections of grassland and tall ruderal habitat, due to the potential presence of reptiles.

The habitat map is shown in figure 2 below.



Figure 2: The habitat map, with the trees shown, notably the moderate potential tree in the southern aspect

Bat Surveys

The bat survey was conducted on the 8th June 2022, by licensed bat worker Richard Law (NE available on request).

Prior to the emergence survey, the tree was climbed and all of the crevices / holes which were identified within the PEA in September 2020, were investigated with an endoscope. The survey was carried out from a ladder with the aid of an extended video endoscope and high power (1 million candle power) torch, and looked for bats and/or signs of use by bats following standard survey guidelines (Collins 2016; Mitchell-Jones 2004; Mitchell- Jones & McLeish 2004).

The following may indicate the presence of a bat roost within crevices within a tree;:

- Bat droppings (these can be found externally, especially in sheltered areas such as beneath roof tiles or surfaces close to entrance points);
- Staining at roost entrances or within the roost (urine and oil from fur can leave stains on timbers when bats are gathered for long periods); and
- Bats (live or dead).

The endoscopic inspection revealed no evidence of roosting bats and no bats currently roosting inside the tree. The features were considered to be superficial. As the features identified were not found to be suitable for bats and no signs of bats are observed then the feature should be downgraded to low risk or 'low' suitability and no further surveys are required.

However, as a precaution, a single emergence survey was subsequently conducted on the ash tree, and to assess general levels of bat activity across the site. The survey was conducted at 20.45, with sunset at 21.15. The survey ended at 22.45. The temperature conditions were 16 degrees, with little wind and no rain.

The first bat was recorded at 21.33 which was a common pipistrelle, which was heard and no seen. Between 21.39 -22.20 two common pipistrelles were foraging around the canopies of the trees making multiple passes. A single brown long eared bat was recorded at 21.52 along the fence line to the south of the site. At 22.04 a myotis, likely Natterers bat, was hears and not seen, and was recorded briefly.

The activity levels were considered to be reasonably low, limited to largely to two common pipistrelles foraging within the edges and tree canopies.

As no evidence of roosting bats were identified within the ash tree, and as such the tree was downgraded to 'low' potential. This tree and the beech tree on site were both considered to have 'low' potential. Any tree which is considered to be a 'low' potential does not require any further survey works. However, all trees with 'low' potential roost features are to be felled in accordance with specific advice provided by the bat-worker ensuring that reasonable avoidance measures are followed. This includes:

- Re-checking the tree and any features for evidence of bats
- Areas of ivy and loose bark should be re checked and carefully removed to reveal the tree trunk below and if any features or bats present
- If evidence of bats is present then works should stop and the advice of an ecologist sought immediately
- Cavities in the trees should not be sawn through but cut above and below cavities
- Sections which support cavities should be soft felled and roped carefully down to the ground
- If a bat is found and is injured the advice of an ecologist should be sought
- If a roost is discovered and no bats are harmed, no further works should be undertaken and the advice of an ecologist sought.

It is recommended that both trees are removed using this approach. It is recommended that log piles from the felling of the trees are maintained on site and stacked for enhancement purposes.

[redacted]

[redacted]

Conclusions

The update bat [redacted] surveys were recommended on the basis of the initial PEA conducted in 2020. The site was re surveyed for bats [redacted] on the 8th June 2022, by Natural England licenced bat worked, who conducted an endoscope survey prior to emergence.

The ash tree was surveyed with an endoscope and was not considered to support opportunities for roosting bats, with the bark, holes and features initially identified from ground level, as being superficial, and no evidence of bats identified. As such the ash tree was downgraded to 'low' potential. This ash and the beech are both considered to have low potential and if removed, must be undertaken following sensitive measures / soft felling, as detailed in this report.

[redacted]

[redacted]

[redacted] Whilst there is no evidence of bats using the ash tree, if during the soft felling process, evidence of bats is found, the works must cease, and an ecologist consulted.

It is considered that the site had not materially altered since the original 2020 survey. As such it was considered that other protected species, such as reptiles, dormice and GCNs are not considered likely to be present on site, and no further surveys for these species are recommended. It is also considered that enhancement and mitigation measures included in the original 2020 report are still considered to be valid.

If you have any questions or queries, then please do not hesitate to get in touch. I look forward to hearing from you.

Many thanks



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Managing Director

Appendix 1: Photographs

Photo 1: The ash tree from the ground	
Photo 2: Close up of the features investigated	

[redacted]	