

**CLOCKHOUSE FARM
BIDBOROUGH
KENT:
PRELIMINARY ECOLOGICAL ASSESSMENT**

BY

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D170. Bidborough (TQ548434)R



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1.0 INTRODUCTION

1.1 This document was compiled in order to report upon a preliminary ecological survey of land east of Clockhouse Farm, Penshurst Road, Bidborough, Kent¹. The survey site consists of an approximately level area of land which is bordered by the B2176 Penshurst Road to the north and is separated from it by a hedge, from various riding stables to the south; the stables include a manège, open grazing fields, a small concrete and hardcore car park and stables, with an existing access from the Penshurst Road in the eastern extremity of the site. On the opposite side of Horseshoes Lane is a bridleway which leads northwards to Ashour Farm through an area of grassland, woodland and arable.

1.2 The **site** itself is located at approximately 100 metres OD, and the soil is Wadhurst clay. The location of the survey site is shown in Figure 1 whilst there is a sketch map of the proposed layout of the site in Louise Hooper Landscape Architect 2023.

1.3 The proposed development is the result of the need to improve access and exit from the site, in the light of the increasingly busy B2176 Penshurst Road and the hazard that it represents to the users of the site.

1.4 There are the following **designated sites** within approximately one kilometre of the survey site:

- Ashour Wood Local Wildlife Site² is an ancient woodland³ and is also designated in part as part of the Priority Habitat Inventory's deciduous woodland⁴; it is approximately 348 metres to the north.
- The grassland between Ashour Wood and the B2176 road is classified in MAGIC maps as good quality semi-improved grassland and is located immediately to the north of the survey site on the northern side of the B2176 road.
- There is an area of ancient woodland in Back Wood, which is 729 metres to the west of the survey site.
- Another area of unnamed ancient woodland occurs 326 metres to the south.

¹ OS / TQ548434 – approximate centre. Grid reference taken from <http://gridreferencefinder.com/#>

² Hereafter 'LWS'. LWS are protected against development at a local (county) level.

³ Ancient Woodland is protected by the provisions of the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2021).

⁴ <https://magic.defra.gov.uk/MagicMap.aspx>. This is an area that is based on the priority habitat inventory (Section 41 of the Natural Environment and Rural Communities Act 2006) habitats of principal importance, and is effectively a 'shopping list', of areas where actions can be taken such as habitat restoration or creation, plus fragmentation action, habitat network enhancement and habitat expansion. It is a material consideration in the planning process.

- There is an old orchard 470 metres south of the site which is Traditional Orchard Priority Habitat.



2.0 METHODS

2.1 The site **visit** took place on Thursday 28th September 2023 and took approximately three hours, during which time the entire site was visited. The purpose of the visit was to carry out ecological scoping surveys as follows:

2.1.1 A search was made for any species, or habitat suitable for any species that are specifically **protected** for conservation purposes by wildlife legislation⁵ such as badgers⁶, bats and common reptiles⁷, using appropriate established techniques e.g.:

- Assessment of potential habitat for reptiles by comparison of the habitat on site with descriptions of potential reptile habitat given by Gent and Gibson (2003) as augmented by earlier personal experience.
- Identifying plants as necessary using Stace (2019) and Poland and Clement (2009).
- Assessment of the hedge beside the B2176, to assess the constituent shrubs and any notable flora. The number of woody species per ten metre length was counted and the herbaceous plants were determined for a total of twenty-eight samples.

2.1.2 A search was also made for species⁸ that are included within the short list of the national **Biodiversity Action Plans** and associated lists⁹. For birds, a search was made for species which are included within the red part of the national bird '**Red List**'¹⁰ as well as any other species that were recorded within the Kent Red Data Book¹¹, Kent Rare Plant Register¹² and other similar publications.

2.1.3 The **biological records** for the site were obtained from the Kent and Medway Biological Records Centre¹³.

⁵ Mostly, this included species listed in <http://jncc.defra.gov.uk/page-3408> as being protected by the Wildlife and Countryside Act 1981 and related legislation.

⁶ Meles meles.

⁷ E.g. common lizard (*Zootoca vivipara*), grass snake (*Natrix helvetica*) and slow – worm (*Anguis fragilis*).

⁸ Or habitat suitable for species.

⁹ Biodiversity Steering Group, 1995 as amended. Hereafter known as the 'BAP.' Also, the species subject of Biodiversity 2020 (<https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services>).

¹⁰ Stanbury (2021).

¹¹ Waite, 2001. Hereafter referred to as 'KRDB.'

¹² <http://bsbi.org/kent>

¹³ Hereafter 'KMBRC'.

3.0 RESULTS

3.1 The **vegetation** of the grassland part of the survey site was closest to Rodwell's (1998) MG1 *Arrhenatheretum elatioris Festuca rubra* subcommunity; no notable species were recorded.

3.2 The roadside **hedge** was thicker and had more trees in it in its western end, whilst the eastern end of the hedge was relatively thin and less diverse. Overall the hedge was dominated by hawthorn¹⁴ which constituted 36% of the shrubs with oak¹⁵ at 19%, blackthorn / damson¹⁶ at 14%, and ash¹⁷ at 9%. The remaining 22% consisted of dog rose¹⁸, field maple¹⁹, willow²⁰ and elder²¹. Ivy²² was dominant throughout the ground flora, with smaller amounts of garlic mustard²³, bramble²⁴, white deadnettle²⁵, wood sorrel²⁶ and black bryony²⁷.

3.3 No evidence of species, or habitat suitable for any species which are specifically **protected** under wildlife legislation was found except in the westernmost end of the hedgerow beside the B2176. At this point, the hedgerow had several trees which had potential for holding bats or their roosts.

3.4 No evidence of any **BAP**, KRDB or other notable species was found on site.

3.5 The **KMBRC** records that were relevant were as follows:

- There were six records of newts from within one kilometre. Of these, four were of smooth newts²⁸ and only two were of great crested newts²⁹. The most recent record was from 2013, but the nearest records were located approximately seven hundred metres south. There were no newt records from north of the B2176.
- There were three records of slow worm, and all were approximately seven hundred metres to the south of the survey site.

¹⁴ *Crataegus monogyna*.

¹⁵ *Quercus robur*.

¹⁶ *Prunus spinosa* / *P. insititia*

¹⁷ *Fraxinus excelsior*.

¹⁸ *Rosa canina*.

¹⁹ *Acer campestre*.

²⁰ *Salix caprea*.

²¹ *Sambucus nigra*.

²² *Hedera helix*.

²³ *Alliaria petiolata*.

²⁴ *Rubus fruticosus* agg.

²⁵ *Lamium album*.

²⁶ *Brachypodium sylvaticum*.

²⁷ *Tamus communis*.

²⁸ *Lissotriton vulgaris*.

²⁹ *Triturus cristatus*.

4.0 DISCUSSION AND CONCLUSIONS

4.1 Short surveys such as this one are good at giving a sample of the ecological value of a given site and showing which species, if any, require more detailed survey³⁰.

4.2 The **methods** of the survey have been used extensively elsewhere with consistent results and accord with good practice guidelines³¹. Signs of protected species and their habitat parameters are reasonably obvious to an experienced surveyor and ecological surveys of this type are valuable in terms of helping to decide whether protected or notable animals or plants are likely to be present, are present, or have been present in or around a site and whether further, more detailed Phase 2 survey is needed for certain species. However, the results of a survey are partially decided by the time of year at which the survey takes place, the stages in an organism's life cycle, and the accessibility of the site. At this site, access was complete.

4.3 The **vegetation** of the hedgerow was examined in detail to see if there were any clues to its origin i.e. whether or not it had ever been part of a woodland. Apart from the fact that the hawthorns which were present were young, it was conspicuous that the trees dominated the western end, whilst the eastern end was more mono - specific. Nowhere were there any ancient woodland species of the type described by Rose (1999), nor were there any banks and ditches that are so often associated with former wood edges³² although historical maps³³ seem to show that the western end of the hedgerow was always dominated by trees. With this evidence from the hedgerow and the lack of ancient woodland indicator plants, as well as the preponderance of ivy³⁴ it can reasonably be concluded that the hedgerow alongside the B2176 is not an ancient woodland relict.

4.4 Consideration was also given to a wide range of other **protected species** that might occur on site, but none were found. For example:

- Apart from the western end of the hedgerow, there were no suitable trees or any buildings on site which offered habitat for roosting **bats**; As a result there is no impact and no need for mitigation. However, if any large trees

³⁰ Stork and Samways, 1995.

³¹ E.g. Chartered Institute of Ecology and Environmental Management, 2013; British Standards Institute, 2013, Collins, 2016.

³² Rackham, 1983.

³³ <https://webapps.kent.gov.uk/KCC.KLIS.Web.Sites.Public/ViewMap.aspx>

³⁴ Hedera helix. This is very much a plant of recent woodland (Rackham, 2006).

are to be felled for the purposes of the proposed development, they may require more detailed survey.

- There was no field evidence of **badger**³⁵ or of badger setts anywhere in the survey area.
- This part of Kent has occasional patches of woodland and scrub with linking hedgerows, and it is therefore considered that **dormouse**³⁶ is likely to occur in the roadside hedge from time to time, although the general density of the hedge means that it is unlikely to be used on a regular basis; the species is known from the nearby area³⁷. However, even when it does occur, it is likely only to be occasionally present when feeding on drupes and berries. As a result there is likely to be negligible impact and no requirement for mitigation, although it would be sensible to resurvey the hedgerow immediately prior to the commencement of any development.
- It is curious that there were a total of approximately thirteen ponds within one kilometre of the proposed development site, albeit that all of these were south of the B2176; the survey area is within an amber³⁸ **great crested newts**³⁹ risk zone⁴⁰ but close to a green one⁴¹. The nearest pond was 327 metres to the south, and yet despite this there were fewer KMBRC records than might have been expected. From this it is concluded that the area around the survey site is under recorded or that newts are naturally rare in the area, but there is still a slight risk of the terrestrial phases of the newts being present in the development site from time to time. Accordingly, it is suggested that reasonable avoidance measures are employed on the site.
- The hedgerow will be used by nesting **birds** in the breeding season⁴², due to the nature of the habitat. Since wild birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981, any work in or close to the hedgerow must take place outside this period or be preceded by an ecological inspection.

³⁵ Badgers and their setts are protected by the Protection of Badgers Act 1992.

³⁶ Dormice (*Muscardinus avellanarius*) are protected by the Wildlife and Countryside Act 1981, and the Conservation of Habitats and Species Regulations 2019.

³⁷ Personal observation and Young *et al*, 2015.

³⁸ Amber zones contain main population centres for great crested newts and include important connecting habitat that helps natural dispersal.

³⁹ Anon, verb. comm. Great crested newts (*Triturus cristatus*) are protected by the Wildlife and Countryside Act 1981 and the Habitat Regulations 2019.

⁴⁰ <https://naturalengland-defra.opendata.arcgis.com/datasets/gcn-risk-zones-kent/explore?location=51.164731%2C0.206987%2C16.00>

⁴¹ Green zones contain sparsely distributed newts and are less likely to contain important corridors of connecting habitat.

⁴² Which is approximately mid – March to July inclusive.

- There was no habitat for **reptiles**⁴³ anywhere in the survey area; the grassland was poorly – vegetated and there was no suitable habitat nearby from which reptiles could spread.
- There will be no impact upon any of the adjacent **protected** or notable areas.

4.5 In **summary**, therefore, there is no suitable habitat on site for protected or notable species, although there is a slight risk of the presence of dormouse and great crested newt, and there could be some breeding bird activity in the hedgerow. If any of the big trees in the western end of the hedgerow are to be felled, there will be a requirement for bat survey work to be carried out.

4.6 It is, however, strongly recommended that, in order to accord with the National Planning Policy Framework⁴⁴ and to supply some positive ecological benefits, some of the wildlife conservation measures and **mitigation** suggested by Gunnell, Murphy and Williams (2013) for instance, should be incorporated into any proposed Scheme by means of a biodiversity plan for the completed development. This should include:

- A range of bird nest boxes should be erected on the site for breeding birds.
- A range of Schwegler bat boxes should be erected on the site for the purposes of supplying bat roosting opportunities.
- Any areas which are to be reseeded or landscaped should be reseeded with a suitable wildflower seed mix to encourage pollinating insects.
- In order to support the needs of bats and nocturnal insects, any lighting that is erected on site should be either low - pressure sodium lamps or mercury lamps fitted with ultraviolet filters. The brightness of lamps should be kept as low as possible and be directed to where it is needed to avoid unnecessary spillage of light. Lighting should not be upwardly - directed light and lighting durations should be limited by fitting timers to all external lights.

⁴³ Common reptiles such as slow worm, adder (*Vipera berus*) and common lizard (*Zootoca vivipara*) are protected against harm by the Wildlife and Countryside Act 1981.

⁴⁴ Ministry of Housing, Communities and Local Government, 2021.

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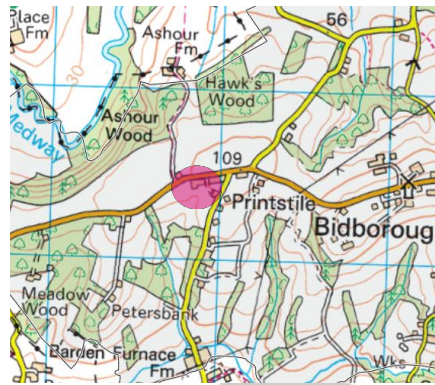


FIGURE 1: THE SITE LOCATION.

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Figure 2; THE MANÈGE AND ASSOCIATED PASTURE.



Figure 3: BIGGER TREES IN THE WESTERN END OF THE HEDGEROW.



Figure 4: THE EASTERN END OF THE HEDGEROW.



Figure 5: A TYPICAL VIEW OF THE HEDGE GROUND FLORA.

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