



Dormouse Surveys

**Land to the North of the Old Brickworks,
Shoreham Road, Henfield**

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LIABILITIES:

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

The views and opinions 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 DMH Stallard to undertake a dormouse survey of land to the north of the Old Brickworks, Shoreham Road, Henfield, BN5 9SE.
- 1.2 A preliminary ecological appraisal (PEA) was undertaken by the Ecology Partnership in November 2023. This found that the western boundary hedgerows, and boundaries surrounding the south-western field were all of a suitable size, age, structure, and species composition to support dormice.
- 1.3 These boundary features in turn connected to a network of similar field edge, scrub and woodland habitat within the local area (particularly to the south and west of site), all of which likely offered suitable opportunities for dormice.
- 1.4 Although no licence returns or local records provided clear evidence of dormice in the area, Sussex is known to have reasonably large populations of the species. Given this fact, and the presence of suitable habitats on site, it was recommended that further surveys for dormice were conducted.
- 1.5 Section 2 of this report sets out the methodology of The Ecology Partnership's survey, Section 3 sets out the results and the implications are discussed in Section 4. Conclusions are provided for in chapter 5 of this report.
- 1.6 The site is located on the western side of the A2037, south of the town of Henfield, and is approximately 3.27ha in size. The site is a series of horse grazed pasture fields, bordered by a mixture of scrub and hedgerows. It is set on the boundary of agricultural landscape to the north and west, and new and established industrial developments to the east and south with Shoreham Road running along the east boundary. The agricultural land includes both pasture and arable, with areas of woodland, scrub and mature hedgerows/treelines, as well as low-density rural residential settlements. The industrial developments have minimal landscaping within the sites and are predominantly surfaced with concrete and tarmac.

Description of Proposed Development

- 1.7 The proposals for site are to redevelop the eastern and northern fields. Twelve new commercial units are planned, alongside their associated parking, access and landscaping.

The westernmost field and a portion of the adjacent one are to be retained as green space for biodiversity net gain enhancement.



Figure 1: Approximate location of the site, indicated by the red-line boundary (QGIS, 2024).



Figure 2: Site development plans, provided by PRC (via DMH Stallard).

2.0 Methodology

- 2.1 During the setup on 28th April 2024, it was noted that portions of the mature scrub habitat previously identified in November 2023, had since been coppiced to ground level. Given this reduction in suitable surveying area, it was decided to incorporate this site survey (Area 1), with another survey (Area 2), which was occurring on directly connected habitat to the immediate south-west of site, which falls within the same land ownership.
- 2.2 A total of 83 dormouse tubes were installed within suitable features on and off-site (scrub and hedgerows), as shown in Figure 3 on 28th April 2024. Of these, 33 were installed on the site itself, with a further 50 on the adjacent site. Each dormouse tube was installed as per Natural England guidelines, attached to the underside of a suitable branch, facing into the vegetation, with suitable material.
- 2.3 Surveys were undertaken approximately once a month between May – October 2024, in dry and suitable conditions. This enabled an effort score of 36.52 to be achieved across the site, in accordance with the Index of Probability in the Dormouse Conservation Handbook.
- 2.4 This is above the minimum recommended score of 20 which is considered necessary in order to detect presence/likely absence of dormice. It should be noted that this effort score is based on sites surveyed using 50 tubes only and as such, with 83 tubes, the scoring is based on the index of probability per month by the 83/50, i.e. $1.66 \times$ the index of probability score per month accounting for the increase in tube numbers.
- 2.5 Surveys were undertaken by consultant ecologist Digby Hayden BSc (Hons), ecologists Edward Simpson BSc (Hons) MSc and Alistair McNaughton BSc (Hons), and assistant ecologist Sophie Baker BSc (Hons) MSc, working as an accredited agent under Natural England Hazel Dormouse licence holder Alexia Tamblyn.



**Figure 3: Approximate area of suitable habitat covered by dormouse tubes on-site (orange areas) and on the adjacent connected site (yellow area).
Taken from Google Earth Pro.**

- 2.6 Although hazel was not present within the red-line boundary for site, a small number of trees were present within the southern portion of the blue-line area, which formed part of the overall survey area. It was therefore possible for hazelnut searches to be conducted within this area, to supplement traditional nest tube methodology.
- 2.7 The difference between evidence of wood mouse (*Apodemus sylvaticus*) and yellow-necked mouse (*Apodemus flavicollis*) in terms of nests and feeding signs is indiscernible. Even the mice themselves cannot be accurately separated without handling. Given the aim of this report, it is considered proportionate to refer to any evidence of these species as '*Apodemus spp.*' to suggest the evidence could be from either species. This reference is used for the remainder of this report.

3.0 Results

3.1 Checks were conducted on 23rd May, 21st June, 7th July, 29th July, 23rd August, 24th September, and 16th October. It should be noted that the survey visits on the 23rd May and 7th July were for Area 2 only, whilst the 21st June was for Area 1 only. As the dormouse tubes remained in situ across the whole time period, any dormouse evidence created within would still be present in the subsequent site visits.

3.2 No nests were found within tubes on site until the 7th July check, which identified a nest of uncertain origin, most likely a small hedgerow/scrub nesting bird such as a robin, or blue tit. This was in the eastern part of Area 2, amongst dense hawthorn scrub. It was constructed of a mixture of moss, feather down and leaf litter. This was identified in all further checks made across the course of the survey.



Figure 4. Birds nest identified in Area 2, on 7th July 2024.

3.3 The first *Apodemus spp.* nest was identified, on 29th July, on the east-west running hedgerow, which ran along the northern boundary of the western field of Area 1. This was a classically constructed *Apodemus spp.* nest, with a messy floor of dry leaves (primarily hawthorn and blackthorn), spread across the tube in relatively even layer (see Figure 5). This was identified

in all further checks made across the course of the survey. It was found to contain several *Apodemus spp.* individuals, on the check on 16th October.



Figure 5. *Apodemus* nest identified in Area 1, on 29th July 2024.

- 3.4 On the 24th September check, a second *Apodemus spp.* nest was identified, in the eastern part of Area 2, just north of the intrusion of the works site. It was amongst the mixed bramble, hawthorn and blackthorn scrub. Again, this one appeared to be a similarly constructed nest to the previously identified one. Messy, constructed from hawthorn and blackthorn leaves, with no real structure to it (see Figure 6). This was identified in all further checks made across the course of the survey.



Figure 6. *Apodemus* nest identified in Area 2, on 24th September 2024.

- 3.5 The final check on 16th October identified several *Apodemus spp.* individuals within a previously identified nest in Area 1. Two further *Apodemus spp.* individuals were identified within nests in Area 2, in addition to three unoccupied *Apodemus spp.* nests. These five nests were located spread across the large scrub area in Area 2, with two on the western side, nearby to the aggregate track, one in the north-eastern glade and another two in the south-eastern corner, all within hawthorn scrub, see Figures 7 and 8.



Figure 7. Apodemus individuals identified within a nest tube in Area 1, on 16th October 2024.



Figure 8. Apodemus nests identified in Area 2, on 16th October 2024

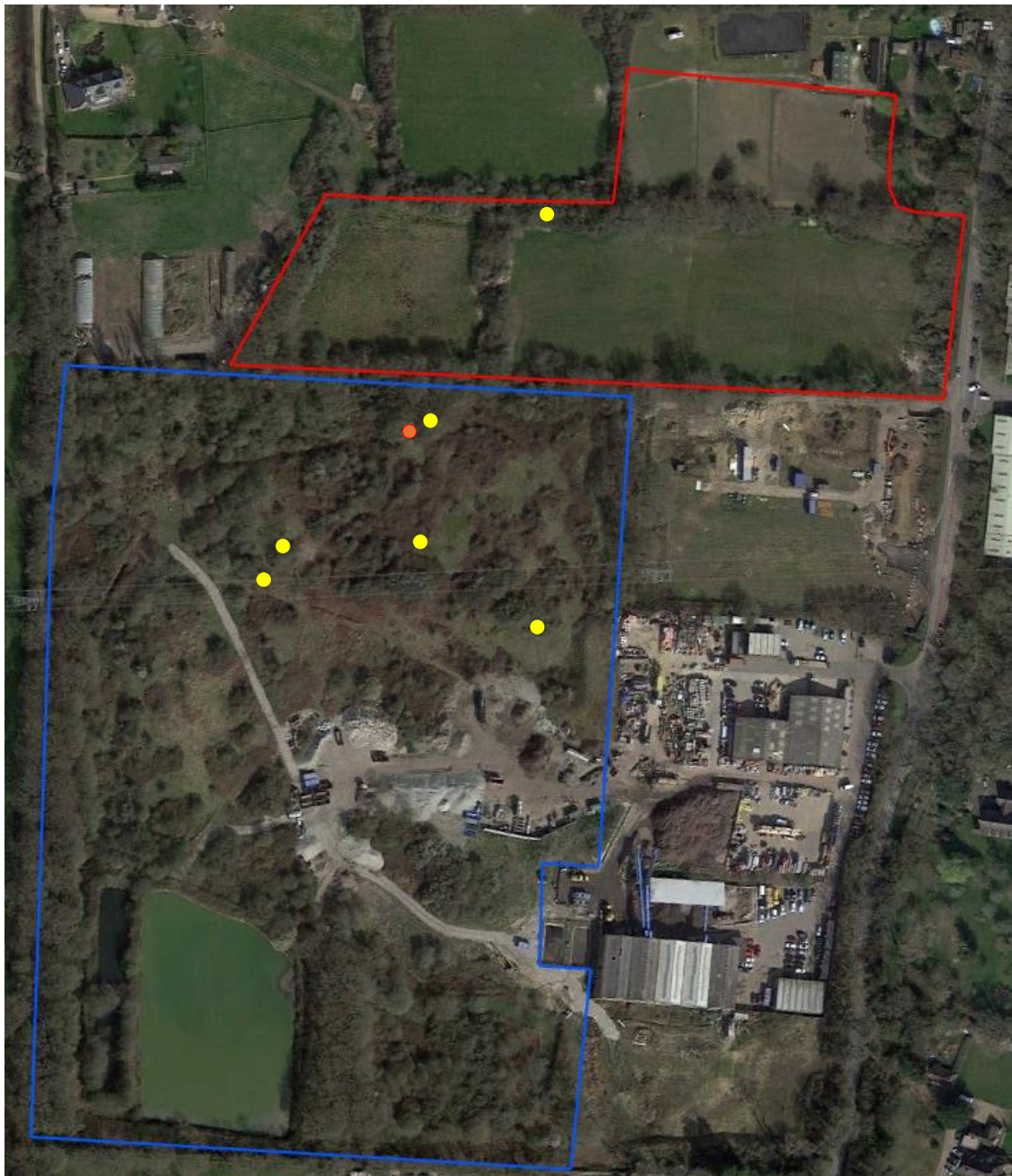


Figure 9. Locations of identified nests and individuals found across the course of the dormouse surveys on site and on the connected adjacent site. Bird nests are shown in red, whilst Apodemus spp. nests are shown in yellow. Taken from Google Earth Pro.

- 3.6 None of the surveys undertaken between April and October inclusive found any evidence of dormice using any of the nest tubes within the site. Only *Apodemus spp.* evidence was found with individuals and their nests identified within tubes over the survey period, in addition to a single bird nest.

- 3.7 Using the Index of Probability outlined in the Dormouse Conservation Handbook (Bright *et al.*, 2006), a score of 36.52 has been achieved for the site after the October check. This exceeds the recommended score of 20 deemed necessary to detect presence/likely absence of dormice.

4.0 Discussion and recommendations

- 4.1 The site was considered to support suitable dormice habitat within the network of boundary scrub which contained species suitable to support a population as well as the connectivity to allow dispersal within the wider area. This habitat was significantly reduced immediately prior to the survey taking place, so the survey area was extended to cover the adjacent site within the same land ownership to the south-west, where additional extensive potential dormouse habitat existed.
- 4.2 Whilst the data search from Sussex Biodiversity Record Centre for the 2024 PEA returned no records for hazel dormice, populations are known to be relatively extensive across Sussex, and the site and wider landscape offered the right mixture of mature field boundaries (hedgerow and scrub), woodland, and mature scrub patches to support a population.
- 4.3 Dormice surveys were conducted on site from May to October inclusive 2024. During these checks, no dormice or evidence of dormice, such as nests or feeding remains, were identified anywhere on site.
- 4.4 *Apodemus spp.* nests and food caches, some of which had the mice themselves inside, were found across both Area 1 and Area 2.
- 4.5 Given all of the above survey evidence, it is considered that dormice are likely to be absent from the site, and therefore the development is not constrained by this species.
- 4.6 The hedgerows and other boundary features are to be largely retained as per site development plans, with the exception of small section along the north-western boundary. Development plans also involve planting up the site with areas of scrub vegetation. This has been incorporated into the Biodiversity Net Gain assessment, but it is recommended that species used are of value to hazel dormice, to provide additional potential opportunities.
- 4.7 Recommended species to be incorporated into the planting scheme will include species of value to dormice and other wildlife and include:
- Hazel (*Corylus avellana*)

- Field maple (*Acer campestre*)
- Hawthorn (*Crataegus monogyna*)
- Holly (*Ilex aquifolium*)
- Hornbeam (*Carpinus betulus*)
- Elder (*Sambucus nigra*)
- Spindle (*Euonymus europaeus*)
- Beech (*Fagus sylvatica*)
- Dog rose (*Rosa canina*)
- Wild cherry (*Prunus avium*)

5.0 Conclusions

- 5.1 The site was identified as having potential to support dormice due to the suitable habitat of hedgerows, hedgerows with trees and scrub around the edges of the site.
- 5.2 Some habitat within site was lost or degraded, prior to the survey. The survey area was therefore extended to cover the adjacent land under the same ownership to the south-west.
- 5.3 No dormice or evidence of dormice were identified anywhere on site, or the adjacent connected site, between May and October inclusive 2024. A total of 83 nest tubes were installed across the two areas, in April and a total effort score of 36.25 was considered to be undertaken across the site.
- 5.4 A number of tubes provided evidence of wood mice and/or yellow-necked mice (*Apodemus spp.*) including nests, and the mice themselves. Density of these species was greatest within the north-east corner of Area 2, approaching the southern boundary of site. No evidence of other mouse species using the tubes were identified at any point.
- 5.5 Given all the evidence gathered throughout the survey season, dormice are likely to be absent from the site. Thus, the development is not considered to be constrained by this species.
- 5.6 Linear scrub on site will be largely retained and enhanced as far as possible as per the site development plans. Native woody species planting across the site to ensure a robust wildlife corridor network persists and improves post-development.

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