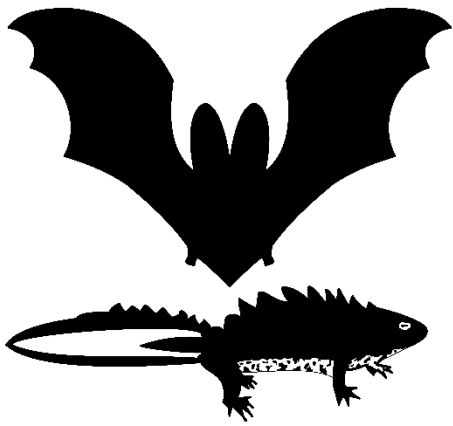




AEWC Ltd

Animal Ecology & Wildlife Consultants

Hazel Dormouse Survey Report

Land East of Henfield Road (A281)

**Henfield Road
Cowfold
West Sussex
RH13 8DT**

Natalie Arscott & Paul Thrift

**25-101
August 2026**

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Summary

- AEWCLtd were commissioned by Landacre Developments Ltd to undertake a presence / likely absence survey for hazel dormouse (*Muscardinus avellanarius*) at Land East of Henfield Road (A281), Cowfold, West Sussex, RH13 8DT at central grid reference TQ 21392 22023 to help inform the proposed development of the site.
- This report details the results of the survey, which was carried out between May and July 2026 by suitably qualified ecologists Natalie Arscott and Paul Thrift.
- Suitable habitat for dormice, including native hedgerows, bramble scrub and mixed scrub, was identified on-site during a Preliminary Ecological Appraisal. Suitable habitat is mostly proposed for retention, but a length of hedgerow will require removal through the middle of the site to facilitate an internal road. Further surveys were therefore required in order to ascertain whether dormice are present at the site and present a constraint to the proposed development.
- A habitat quality assessment was undertaken for all suitable habitat on-site, taking into account plant species diversity and structural complexity. Suitable habitat was split into four parcels, with one of these assessed as being 'excellent' quality habitat for dormice, two being 'good', and one being 'poor'.
- A total of 50 dormouse footprint tunnels were installed across the site on the 30th April 2026, these being placed in suitable positions within all suitable habitats. A series of seven checks were undertaken throughout May, June and July 2026.
- **No evidence of dormice was found during the survey, despite the survey following a method with a >97% likelihood of detection. As such, it is considered that hazel dormice are likely absent from the site and there are no known constraints regarding this species and the proposed development.**
- **As a precautionary measure, it is recommended that a toolbox talk regarding dormice is provided to contractors at the start of clearance works.**
- **Should a hazel dormouse or evidence of this species be found at any stage during the works, works must immediately stop in this area and a suitably qualified ecologist consulted. A licence may be required for works to proceed.**

This report has been prepared by AEWCLimited, with all reasonable skill, care and diligence within the terms of the Contract with the client. We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above. This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the Professional Guidance and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

1 Introduction

- 1.1 AEWCLtd were commissioned by Landacre Developments Ltd to undertake a presence / likely absence survey for hazel dormouse (*Muscardinus avellanarius*) at Land East of Henfield Road (A281), Cowfold to help inform the proposed development of the site.
- 1.2 A Preliminary Ecological Appraisal was undertaken at the site by AEWCLtd in January 2026. This identified suitable habitat for dormice on-site in the form of native hedgerows, bramble scrub and mixed scrub. These habitats are connected to further off-site hedgerows, which connect to small blocks of woodland in the surrounding landscape. The biological data record search also revealed records of dormice within 2km of the site within the past 10 years, the nearest being 900m to the northeast.
- 1.3 Proposals are for a residential development comprising 40 dwellings with associated private gardens and infrastructure. The majority of habitat suitable for dormice will be retained, however a section of the native hedgerow and associated bramble scrub through the middle of the site will require removal for a new internal road between the two fields. This could impact habitat connectivity for hazel dormice, if present.
- 1.4 Further surveys were therefore required to ascertain whether dormice are present at the site and represent a constraint to the proposed development.
- 1.5 This report details the results of the dormouse survey and outlines recommendations in relation to dormouse and the proposed development of the site.

Aims and Objectives

- 1.6 The aims and objectives of the survey were to:
 - Assess the quality of the on-site habitats for suitability for dormice;
 - Undertake a dormouse survey to determine presence / likely absence of this species within the proposed development site;
 - Evaluate the conservation importance of the survey area in relation to dormice;
 - Provide information to inform the impact assessment of development proposals for the area; and
 - Provide information for use in the design and development of ecological mitigation and enhancement measures where appropriate.

Site Location

- 1.7 The proposed development site is located at Land East of Henfield Road (A281), Cowfold, West Sussex, RH13 8DT at central grid reference TQ 21392 22023. The site is situated in a semi-rural location on the southern edge of Cowfold village, adjacent to Henfield Road and Eastlands Lane. The surrounding landscape predominantly comprises agricultural fields, pasture, and small blocks of woodland, interconnected

by hedgerows and tree lines, with scattered residential properties throughout the wider landscape and more built-up residential development within Cowfold village to the north. A sewage treatment works lies adjacent to the eastern boundary of the site, with Cowfold Stream located along the southern boundary. The nearest major roads are the A281, adjacent to the west of the site, and the A272, located approximately 390m to the north. See Figure 1.



FIGURE 1: SHOWING THE LOCATION OF THE SITE

Legislation

1.8 Hazel dormouse is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

1.9 Hazel dormouse is also a Species of Principal Importance in England under Section 41 of the *Natural Environment and Rural Communities Act 2006*.

Habitat Requirements

- 1.10 The common or hazel dormouse is easy to distinguish from other native small mammals because it has an orange-brown coat and a thickly furred tail. It is nocturnal and highly arboreal. The dormouse's specialised diet includes flowers, fruits, insects, pollen and nuts. The dormouse is active between late April and early November, spending the remainder of the year in hibernation.
- 1.11 Traditionally dormouse habitat is ancient semi-natural woodlands, especially mixed species-rich open coppiced woodland. However, they have also been found in other habitats, such as conifer plantations, native hedgerows, and scrub.
- 1.12 Over the last 100 years, the dormouse population has declined and become extinct over much of England, primarily because of changes in woodland management and habitat fragmentation. The dormouse is now mainly found in southern England, although it also occurs in scattered localities as far north as the Lake District and in parts of Wales.
- 1.13 Dormice feed on hazel as part of their diet and have a distinctive way of opening the nuts, leaving a smooth, round opening. Hazel nuts opened by dormice have tooth marks around the rim of the hole, with few tooth marks on the nut surface and no transverse tooth marks across the rim of the nutshell. Hazel nuts gnawed by other rodents show a different pattern of tooth marks and generally have irregular holes.

2 Method

Habitat Assessment

- 2.1 The site was assessed for habitats with suitability to support hazel dormice, such as well-connected deciduous and mixed woodland, native hedgerows, scrub, and woodland edge habitats, with a particular emphasis on the presence of key food-providing species such as hazel, honeysuckle, bramble, hawthorn, and oak. Consideration was given to habitat structure, continuity of the canopy and shrub layers, the availability of dense understorey vegetation, and the degree of connectivity to surrounding suitable habitats, all of which are important for supporting dormouse foraging, nesting and dispersal.
- 2.2 Habitats with suitability for dormice identified on-site were subject to an assessment of habitat quality using the methodology detailed within the Hazel Dormouse Mitigation Handbook (Wells et al. 2025). Where there are multiple different habitat types suitable for dormice present, or the same habitat type differs in characteristics across different parts of the site, the site is broken down into habitat parcels and each parcel assessed separately for its habitat quality. Habitat quality takes into account plant species diversity and structural complexity.

- 2.3 Plant species diversity is determined by counting species within the habitat parcel along transects of approximately 100m length and taking an average. Only species of known value to dormice, as listed in Table 3.3 of the Mitigation Handbook, can be included. The habitat parcel is then assessed as having 'low', 'medium', or 'high' species diversity, whereby 'low' equates to less than 3 plant species per transect, 'medium' equates to 3 – 6 plant species per transect, and 'high' equates to greater than 6 plant species per transect.
- 2.4 Structural complexity is determined by considering various habitat characteristics and features, and assessing which category the habitat parcel falls into based on Tables 3.5a and 3.5b of the Mitigation Handbook. For woodland and scrub, this includes the presence/absence and connectivity of canopy, understory, and scrub layers. For hedgerows, this includes the presence/absence of gaps, height, width, dense growth to ground level, dense outgrowths, presence and spacing of mature standards, and width of marginal permanent herbaceous cover. Structural complexity falls into three habitat suitability categories – 'low', 'medium', or 'high'.
- 2.5 The overall quality assessment then uses the plant species diversity and structural complexity to assign a habitat quality of 'excellent', 'good', 'fair', or 'poor'. This relationship is provided by the matrix in Table 3.6 of the Mitigation Handbook, which is shown in Figure 2 below.

Quality assessment

Table 3.6 The relationship between species diversity, structural complexity and habitat quality.

		Diversity		
		High	Medium	Low
Complexity	High	Excellent	Good	Fair
	Medium	Good	Good	Poor
	Low	Fair	Poor	Poor

Estimated density of dormice

Table 3.7 Relationship between habitat quality and dormouse density in terms of numbers of breeding adults; (n km-1 in hedgerow and n ha-1 in woodland/scrub).

Quality	Hedgerow	Woodland/ Scrub
Excellent	8	10
Good	5	6
Fair	3	4
Poor	1	2

Table 3.8a Area of woodland habitat (ha) falling into each category.

		Diversity		
		High	Medium	Low
Complexity	High	5	1	3
	Medium			1
	Low	3		2

Table 3.8b Estimated number of dormice based on area of habitat (ha) shown in table 3.8a and values for dormouse density (n ha-1) in table 3.7.

Quality	Area of Woodland	Dormouse density	No. of dormice
Excellent	5	10	50
Good	1	6	6
Fair	6	4	24
Poor	3	2	6
TOTALS	15		86

FIGURE 2: TABLES 3.6, 3.7, 3.8A AND 3.8B FROM THE HAZEL DORMOUSE MITIGATION HANDBOOK

- 2.6 Where dormice are identified present, the habitat quality assessment can be used to provide an estimate of the number of breeding adults that may be present. Each habitat quality category is associated with an average dormouse density per km of hedgerow and per ha of woodland or scrub. This is provided in Table 3.7 of the Mitigation Handbook, with worked examples provided in Tables 3.8a and 3.8b (see Figure 2).

Footprint Tunnel Survey

- 2.7 Survey methodology followed guidance provided in the 2025 Hazel Dormouse Mitigation Handbook. This recommends that a minimum of 50 footprint tunnels per site are installed in dense areas of understory or suitable habitat, spaced at 15-20m apart and covering as large a proportion of the available habitat as possible. Tunnels should be checked and ink pads replaced at least twice a month.
- 2.8 The probability of detecting dormice is considered to be 97% or greater if 50 tunnels are used for 3 months during the survey period of May to October inclusive, providing habitat quality is 'good' or 'excellent'.
- 2.9 For sites where all suitable habitats are assessed as 'fair' or 'poor', the likelihood of detection is lower and therefore survey effort should be increased, with a combination of nest tubes and footprint tunnels used.
- 2.10 Fifty dormouse footprint tunnels were installed on the 30th April 2026 within suitable habitat along the western, southern, and eastern site boundaries as well as through the middle of the site between the two fields. These habitats included native hedgerow with trees, bramble scrub, and mixed scrub. There is a short section of native hedgerow along the northern boundary in the northwestern corner, however this was assessed as unsuitable for dormice and therefore not included in the survey.
- 2.11 Surveying of the tunnels commenced in May 2026, with checks being undertaken approximately every 2 weeks until the 30th July 2026, by suitably qualified ecologists Natalie Arscott and Paul Thrift. Each tunnel was surveyed sequentially, with the insert removed and the paper inspected for the presence of dormouse footprints. The paper was replaced on every check and fresh charcoal and oil mixture applied to a masking tape inepad at either end of the paper.

3 Constraints/Limitations

- 3.1 No hazel nuts were available to check for evidence of dormouse foraging; therefore, the presence / likely absence survey comprised a footprint tunnel survey only.
- 3.2 All suitable habitat on-site was fully accessible for deploying tunnels and the survey was undertaken in accordance with best practice guidelines. As such, there were no notable constraints to the footprint tunnel survey.

4 Results

Habitat Assessment

Habitat Description

- 4.1 There is habitat suitable for dormice at the field boundaries, in the form of a native hedgerows with trees along the southern boundary and down the middle of the site separating the two fields, a belt of bramble scrub along a section of the western boundary, and a block of mixed scrub along the eastern boundary. These habitats are directly connected to further off-site hedgerows, which connect to small blocks of woodland in the surrounding landscape, and as such there is sufficient habitat connectivity for dormice to utilise the site.
- 4.2 There is a short section of native hedgerow in the northwestern corner of the site, however this is considered unsuitable for dormice and therefore is not considered further and was not included in the footprint tunnel survey. This hedgerow comprises a series of poplars which have been topped. Each shrub is leggy, with no understory, and the hedge lacks any dense structure that would be suitable for dormice. The hedgerow is also isolated; it does not directly adjoin any other suitable habitat and is bordered by a road to the west and residential gardens to the north.
- 4.3 For the purpose of assessing habitat quality, the suitable on-site habitats have been separated into four different habitat parcels to be assessed separately, as follows:
- 4.4 **Hedgerow 1:** Through the centre of the site, a native hedgerow with trees separates the two main fields that make up the site. This hedgerow is shrouded by bramble scrub on either side.
- 4.5 **Hedgerow 2:** A native hedgerow with trees runs along the site's southern boundary, associated with a stream. Small patches of bramble scrub adjoin this hedgerow in places.
- 4.6 **Bramble Scrub:** Along most of the western boundary is a wide belt of bramble scrub.
- 4.7 **Mixed Scrub:** Along the eastern boundary is a wide belt of mature mixed scrub.
- 4.8 The on-site habitats with suitability for hazel dormice are shown in Figure 3 and Photographs 1 - 4 below.

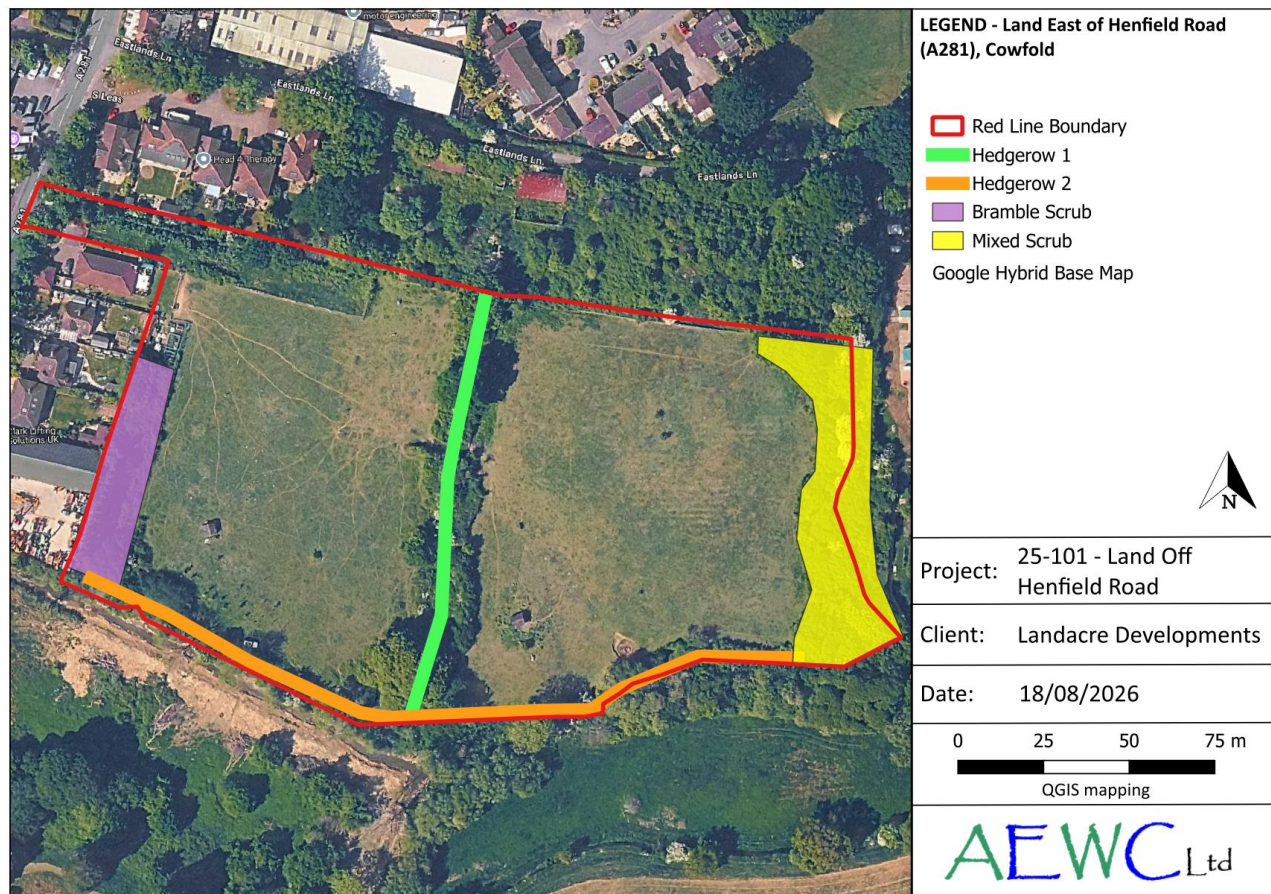


FIGURE 3: SHOWING THE ON-SITE HABITATS WITH SUITABILITY FOR DORMICE



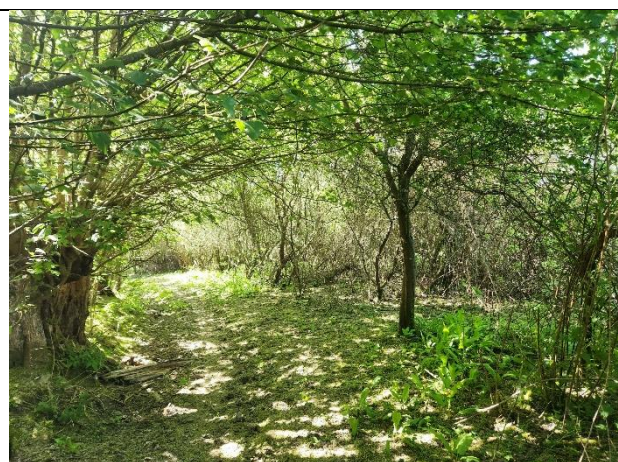
Photograph 1 – Hedgerow 1 through the centre of the site.



Photograph 2 – Hedgerow 2 along the southern boundary.



Photograph 3 – Bramble scrub along the western boundary.



Photograph 4 – Mixed scrub along the eastern boundary.

Plant Species Diversity

- 4.9 **Hedgerow 1:** This hedgerow is composed of blackthorn, pedunculate oak, alder, holly, hawthorn, and bramble. European privet is also present, however this is not listed amongst the species suitable for dormice. With a typical plant diversity of up to 6 species per 100m length, it is regarded as having ‘medium’ species diversity.
- 4.10 **Hedgerow 2:** This hedgerow is composed of hazel, blackthorn, bramble, alder, hawthorn, elder, willow, ash, birch, field maple, pedunculate oak, and holly. With a typical plant diversity of over 6 species per 100m length, it is regarded as having ‘high’ species diversity.
- 4.11 **Bramble Scrub:** The bramble scrub is composed purely of bramble and therefore is regarded as having ‘low’ species diversity.
- 4.12 **Mixed Scrub:** The mixed scrub is composed of elder, blackthorn, bramble, field maple, hawthorn, birch, and alder. With a plant diversity of over 6 species, it is regarded as having ‘high’ species diversity.

Structural Complexity

- 4.13 **Hedgerow 1:** The majority of this hedgerow (southern two-thirds) features no gaps, a width of >3m, a height of mostly >3m, dense growth to ground level, and dense outgrowths present. The northern section had been flailed in the previous winter and therefore was more gappy and leggy. Some trees are present. It is overall regarded as having ‘medium’ structural complexity when considering the full length.
- 4.14 **Hedgerow 2:** This hedgerow features no gaps in length, a width of >3m, a height of mostly >3m, dense growth to ground level along most of the hedgerow, and dense outgrowths present. Some trees are present. It is overall regarded as having ‘high’ structural complexity.

- 4.15 **Bramble Scrub:** The bramble scrub is dense, continuous, and well connected, with a well-established understorey to ground level. A taller canopy is absent other than some poplar trees behind the scrub. It is overall regarded as having 'medium' structural complexity.
- 4.16 **Mixed Scrub:** The canopy layer is dense and very well connected. The understorey layer is fair, with some sparse areas due to grazing by small ponies. It is overall regarded as having 'medium' structural complexity.

Overall Habitat Quality Assessment

- 4.17 **Hedgerow 1:** With medium species diversity and medium structural complexity, this hedgerow is regarded as having 'good' habitat quality for dormice.
- 4.18 **Hedgerow 2:** With high species diversity and high structural complexity, this hedgerow is regarded as having 'excellent' habitat quality for dormice.
- 4.19 **Bramble Scrub:** With low species diversity and medium structural complexity, this habitat is regarded as having 'poor' habitat quality for dormice.
- 4.20 **Mixed Scrub:** With high species diversity and medium structural complexity, this habitat is regarded as having 'good' habitat quality for dormice.

Footprint Tunnel Survey.

- 4.21 A total of seven tunnel checks were carried out between early May and the end of July 2026. No dormouse footprints were recorded in any of the tunnels during any of these checks. The checks were conducted on the following dates:
- 8th May 2026
 - 22nd May 2026
 - 5th June 2026
 - 23rd June 2026
 - 7th July 2026
 - 22nd July 2026
 - 30th July 2026
- 4.22 The majority of the tunnels were found to contain mouse (non-dormouse) footprints on most of the checks, including occasional feeding remains, confirming that they were in regular use by small rodents and that the charcoal mixture was an appropriate consistency to leave footprints. However, no footprints that resembled those typical of dormice were ever present.

4.23 The locations of the footprint tunnels are shown in Figure 4 below. Tunnels were not deployed in the northern-most section of Hedgerow 1 since this had been flailed and had poor structure. An even distribution throughout the remainder of the suitable habitat was targeted, where vegetation was suitable to secure tunnels effectively.

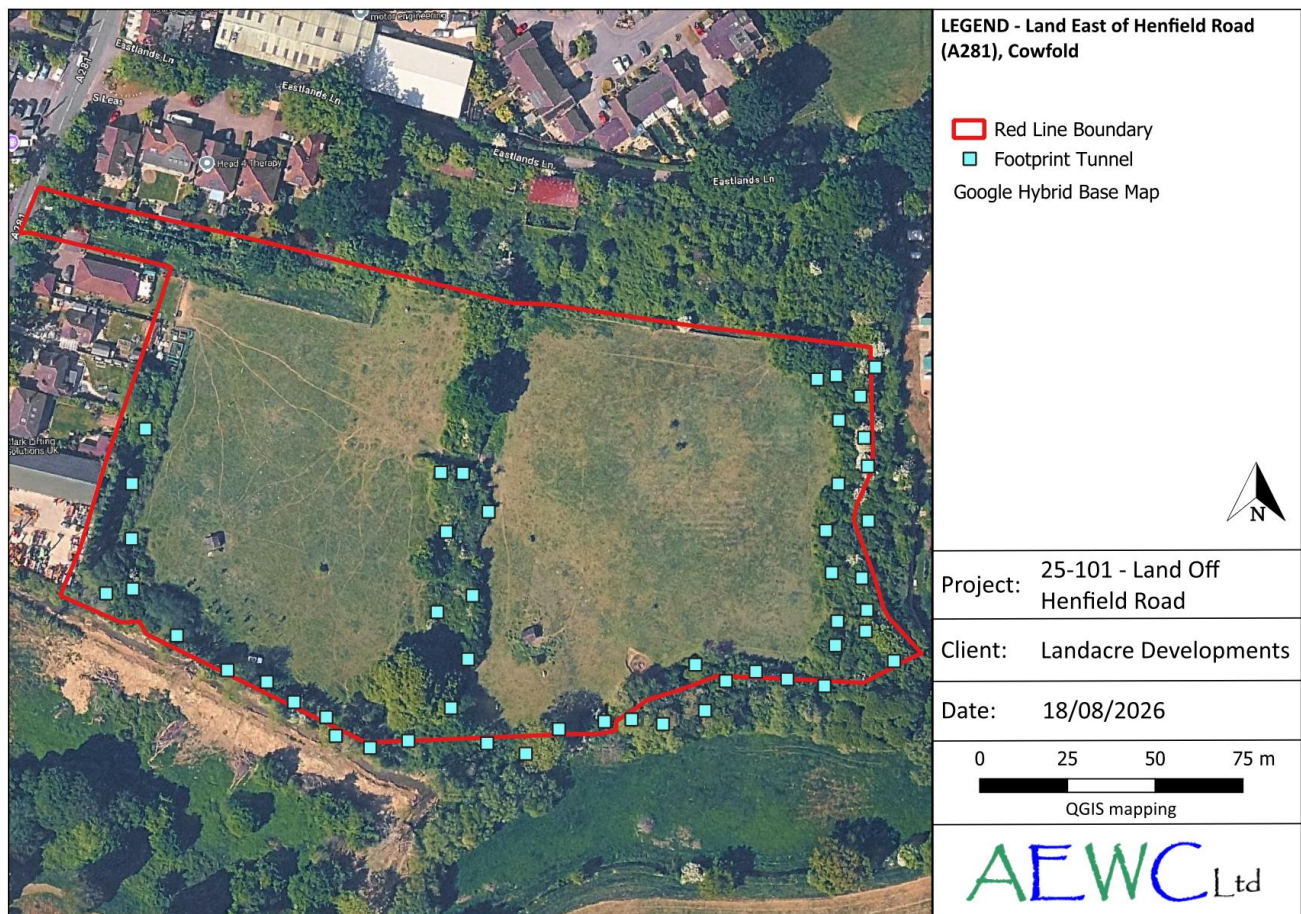


FIGURE 4: LOCATIONS OF DORMOUSE FOOTPRINT TUNNELS

5 Conclusions & Recommendations

- 5.1 Whilst there is habitat with good to excellent suitability for hazel dormouse at the field boundaries, no evidence of this species was found during the survey, despite the survey following a method with a >97% likelihood of detection. As such, it is considered that hazel dormice are likely absent from the site and there are no known constraints regarding this species and the proposed development.
- 5.2 Due to there being suitable habitat on-site, making it possible that this species could use on-site habitats in the future, **it is recommended that a toolbox talk is provided by a suitably qualified ecologist to on-site contractors prior to the start of clearance works.** This should include information about the legislation regarding hazel dormice, their appearance and the appearance of their nests, and the procedure to follow should a hazel dormouse or potential evidence of this species be encountered

on-site. Contractors will be made aware that the highest risk to dormice will be during the clearance of the hedgerow separating the two fields to construct an internal road.

- 5.3 **Should a hazel dormouse or evidence of this species be found at any stage during the works, works must immediately stop in this area and a suitably qualified ecologist consulted.** A licence may be required for works to proceed.
- 5.4 It is recommended that new native hedgerow planting is provided along the northern boundary, to compensate for the loss of a section of the hedgerow through the middle of the site and provide alternative habitat connectivity.

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