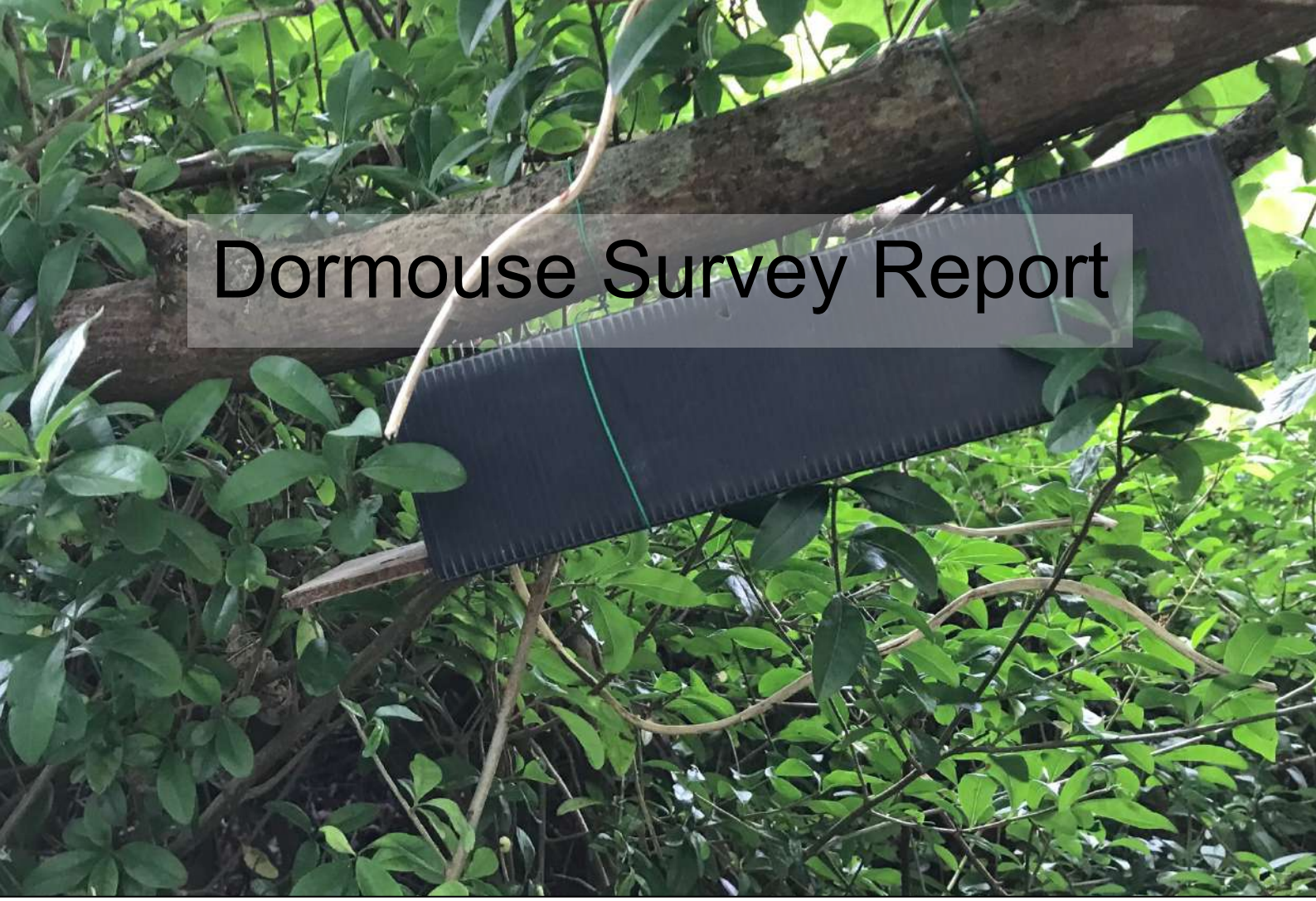

Dormouse Survey Report

ecologybydesign

Postcombe and Lewknor Solar, Land south of Postcombe

On behalf of Postcombe and Lewknor Solar Farm Limited

March 2025

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Project Code	Title	Date of Issue
EBD03850	Postcombe and Lewknor Solar Dormouse Report	24 March 2025

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Checked by	Laura Grant BSc (Hons), MCIEEM	14 October 2024
Revised by	Karen Lunan, BSc(Hons), MSc, MCIEEM	24 March 2025

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1 Executive Summary

Report purpose	This report identifies the findings of a dormouse survey at a proposed solar farm site at the land south of Postcombe, Thame, Oxfordshire, OX9 7EE (approximate central grid reference SU71105 98880). This report also outlines the potential impacts and recommended mitigation, compensation and enhancement measures.
Date and methods of survey	A dormouse survey of the site using nest tubes and nut searches was conducted between April and October 2024.
Key findings	The site, situated south of Postcombe, is approximately 86ha in extent and includes large arable fields, neutral grassland along field margins and small parcels of lowland mixed deciduous woodland, other broadleaved woodland plantations and species-rich native hedgerows with trees and other native hedgerows. Aston Rowant SAC/SSSI/NNR and Chiltern Beechwoods SAC/SPA located 1.4km and 2.2km from the site. Key findings include: • Desk study records for dormouse within 500m of the site from 2022. • The surveys recorded a likely absence of dormice within the woodlands and hedgerows at the site. • Other small mammals recorded within the nest tubes include edible dormouse (*Glis glis*) and wood mouse (*Apodemus sylvaticus*).
Potential impacts and recommendations	The proposals for the site are for the construction of a solar farm. It is proposed to retain all the woodland parcels and hedgerows within the site. As dormouse are considered likely to be absent from the site, there are no impacts foreseen in relation to this species and therefore no further recommendations are made in relation to the species.

2 Introduction

2.1 Background

2.1.1 Ecology by Design was commissioned by ITP Energised (now SLR Consulting) to undertake a dormouse survey of land south of Postcombe, Thame, Oxfordshire, OX9 7EE (approximate central grid reference SU71105 98880).

2.2 Site Description

2.2.1 The 86ha site is situated to the south of the village of Postcombe and is bisected by the M40 motorway. It comprises large arable fields, other neutral grassland along field margins, other broadleaved woodland and hedgerows. The site lies within a largely arable landscape with some scattered small deciduous woodland parcels and areas of wood pasture. Aston Rowant SAC/SSSI/NNR is located 1.4km southeast of the site.

2.3 Proposed Works

2.3.1 The proposals for the site are for the construction of a solar farm. It is understood that it is proposed to retain all the woodland parcels and hedgerows within the scheme design, however there may be severance of habitats for access roads and cabling.

2.4 Aims of Report

2.4.1 This report presents an appraisal of the potential impacts of the proposed development works on dormice. The report outlines the assessment of potential impacts and recommendations for avoidance, mitigation, compensation and enhancement measures.

2.5 Personnel

2.5.1 This project is led Principal Ecologist Karen Lunan BSc (Hons), MSc, MCIEEM who has over 18 years' experience in ecological consultancy.

2.5.2 The dormouse surveys were conducted by Laura Grant, Karen Lunan, Sofia Sanchez (accredited agents under Director Ben Gardner's dormouse survey licence 2016-19516-CLS-CLS); with assistance from Jack Bailey, Celia Brailsford, Charlie Hester, Harry Eldon and Clare John.

2.5.3 Project supervision and review of the report was provided by Associate Director Laura Grant, BSc (Hons), MCIEEM, who has been an ecological consultant for 16 years.

3 Methods

3.1 Desk Study

3.1.1 Records of dormouse were requested from Thames Valley Environmental Records Centre (TVERC) (returned 18th April 2024); for within a 2km radius of central OS national grid reference (SU71105 98880). MAGIC (www.magic.gov.uk) was also used to identify presence of granted hazel dormice European Protected Species Mitigation licences within the local area (accessed 18th April 2024).

3.2 Dormouse Survey

3.2.1 Surveys for dormice (*Muscardinus avellanarius*) were undertaken in 2024 based on techniques set out in the Dormouse Conservation Handbook (Bright *et al*, 2006) and Natural England Interim Guidance Document (Natural England, 2011[1]). Consideration was given to the index of probability of finding dormice present in nest tubes in any one month (based on 50 tubes deployed; doubling the scores for 100 tubes or more). All the monthly scores for the period over which the tubes were surveyed were added together. A minimum score of 20 must be reached to determine presence/likely absence.

Table 3.1: *Index of probability of finding dormouse within nest tubes*

Month	Index of Probability
April	1
May	4
June	2
July	2
August	5
September	7
October	2

3.2.2 On 21st March 2024, 131 nest tubes were deployed within the most suitable habitat of the site including, deciduous woodlands and hedgerows. The locations of the nest tubes are shown in

[1] Whilst this 2011 guidance has been superseded by more recent government guidance (2015), the survey techniques remain the same.

Appendix 2. The nest tubes were inspected for dormice and/or their characteristic nests once per month from April to October 2024, as detailed in Table 3.2 below.

Table 3.2: *Date, surveyors and weather conditions during dormouse surveys*

Date	Surveyors*	Weather	
		Start	End
23/04/2024	LG, CB	11°C, cloud[2] 8/8, wind[3] Bf 2, no rain	12°C, cloud 7/8, wind Bf 3, no rain
23/05/2024	LG, JB	14°C, cloud 4/8, wind Bf 2, no rain	17°C, cloud 5/8, wind Bf 2, no rain
19/06/2024	SSP, CH	16°C, cloud 7/8, wind Bf 3, no rain	22°C, cloud 4/8, wind Bf 3, no rain
18/07/2024	KL, HE	18°C, cloud 3/8, wind Bf 1, no rain	24°C, cloud 0/8, wind Bf 1, no rain
12/08/2024	KL, CJ	20°C, cloud 1/8, wind Bf 0, no rain	27°C, cloud 6/8, wind Bf 1, no rain
11/09/2024	SSP, CH	11°C, cloud 7/8, wind Bf 4, no rain	14°C, cloud 7/8, wind Bf 4, no rain
02/10/2024	CH, JB	12°C, cloud 6/8, wind Bf 1, no rain	12°C, cloud 8/8, wind Bf 2, light drizzle

* Where: LG = Laura Grant, CB = Celia Brailsford, JB = Jack Bailey, SSP = Sofia Sanchez Piccone, CH = Charlie Hester, KL = Karen Lunan, HE = Harry Eldon, CJ = Clare John (all accredited agent under Director Ben Gardner's dormouse survey licence 2016-19516-CLS-CLS).

3.2.3 Nut searches involved searching the ground near hazel (*Corylus avellana*) for hazel nuts which were gnawed in a characteristic fashion by dormice. A nut search was conducted by Associate Ecologist Laura Grant BSc MCIEEM (accredited agent under Director Ben Gardner's dormouse survey licence 2016-19516-CLS-CLS) on 21st March 2024. Samples of gnawed nuts found within the nest tubes during the survey visits were also assessed for evidence of dormouse.

3.3 Limitations/Constraints

3.3.1 Weather conditions were suitable to conduct the surveys.

3.3.2 Between June and September, some of the dormouse tubes became increasingly difficult to find due to the hedgerow and scrub growth and tall ruderal vegetation, including nettles alongside the hedgerows. In addition, some tubes were damaged or missing albeit these were

[2] Cloud cover is measured using the system called oktas. The visible sky is divided into eight and cloud presence is determined within each section. A value of one to eight is then assigned (1 okta being cloudless to 8 oktas being total cloud cover).

[3] Wind is measured using the Beaufort scale which is an empirical measure from 0-12 which relates wind speed to observed conditions. 0-Calm, 1- Light air, 2- Light breeze, 3- Gentle breeze, 4- Moderate breeze, 5- Fresh breeze etc

replaced on the following survey visits where possible. Of the 131 nest tubes deployed, the following numbers were not found/lost/damaged: 2 in April, 2 in May, 16 in June, 15 in July, 14 in August, and 15 in September and 2 in October (in the case of September, this includes tubes that could not be checked due to shooting taking place in the woodland belt south of the M40). This equates to a maximum of 12.2% of the tubes deployed not being located/damaged. Nevertheless, the quantity of boxes surveyed far exceeds the 50 boxes or tubes recommended in industry standard guidance to confirm presence/likely absence, therefore the damaged or missing boxes is not considered to have constrained the survey findings.

4 Results and Interpretation

4.1 Desk Study

4.1.1 Two records for hazel dormice were returned within 2km of the site. Both were 0.45km southwest of the site in 2022.

4.1.2 No European protect Species Licences (EPSL) were returned for hazel dormice within 2km of the site.

4.1.3 The site contains small parcels of deciduous woodland and hedgerows which have potential to provide suitable habitat for dormice to nest and forage, albeit connectivity to the wider landscape is poor due to the presence of major roads such as the M40 and A40.

4.2 Dormouse Survey

4.2.1 The results of the dormouse surveys are detailed in Table 4.1 below. No dormice have been recorded within the site and a score of 46 has been achieved, therefore likely absence can be reliably confirmed on this basis.

4.2.2 Non-target species evidence recorded within the tubes during the survey include wood mouse (*Apodemus sylvaticus*), edible dormouse (*Glis glis*) and blue tit (*Cyanistes Caeruleus*).

4.2.3 The remainder of tubes were empty or contained small numbers of invertebrates such as spiders, woodlice or slugs.

Table 4.1: *Results of dormouse surveys*

Survey number	Date	Results
1	23/04/2024	No evidence of hazel dormouse. One wood mouse nest, one bird nest and two active blue tit nests.
2	23/05/2024	No evidence of hazel dormouse. One wood mouse nest, one bird nest and two active blue tit nests.
3	19/06/2024	No evidence of hazel dormouse. Three wood mouse nests and three active bird nests, two identified as blue tit.
4	18/07/2024	No evidence of hazel dormouse. One wood mouse nest and four defunct bird nests.
5	12/08/2024	No evidence of hazel dormouse. One individual edible dormouse within the central woodland belt of the northern half of the site (tube no. 54). Two defunct bird nests.

6	11/09/2024	No evidence of hazel dormouse. Three wood mouse nests, two wood mouse feeding caches (sample of nuts checked and confirmed as wood mouse) and two defunct bird nests.
7	02/10/2024	No evidence of hazel dormouse. Three wood mouse nests and three wood mouse feeding caches.

5 Potential Impacts and Recommendations

5.1 Summary and Conclusions

5.1.1 This report has outlined the background, methodology, results and interpretation of data for the dormouse surveys undertaken at the site, indicating that dormice are likely absent.

5.1.2 As such there are no potential impacts anticipated on this species to consider as a result of the proposals and thus no subsequent recommendations to be made.

6 Relevant Legislation and Policy

6.1 Local Planning Policy

6.1.1 The South Oxfordshire Local Plan was adopted in 2011 and contains the following policies of relevance to this document:

Policy ENV2: Biodiversity – Designated Sites, Priority Habitats and Species

"1. The highest level of protection will be given to sites of international nature conservation importance (Special Areas of Conservation). Development that is likely to result in a significant effect, either alone or in combination, on such sites will need to satisfy the requirements of the Conservation of Habitats and Species Regulations 2017 (as amended).

2. Sites of Special Scientific Interest (SSSI) are of national importance. Development that is likely to have an adverse effect on a SSSI (either on its own or in combination with other developments) will only be permitted in exceptional circumstances, where it can be demonstrated that the benefits of the development in the location proposed clearly outweigh any harm to the special interest features and the SSSI's contribution to the local ecological network. In such circumstances, measures should be provided (and secured through planning conditions or legal agreements) that would mitigate or, as a last resort, compensate for the adverse effects resulting from development.

3. Development likely to result, either directly or indirectly to the loss, deterioration or harm to:

- *Local Wildlife Sites*
- *Local Nature Reserves*
- *Priority Habitats and Species 168 Local Plan 2035 DECEMBER 2020 South Oxfordshire District Council*
- *Legally Protected Species*
- *Local Geological Sites*
- *Ecological Networks (Conservation Target Areas)*
- *Important or ancient hedges or hedgerows*
- *Ancient woodland and veteran trees*

will only be permitted if:

i) the need for, and benefits of the development in the proposed location outweigh the adverse effect on the interests;

ii) it can be demonstrated that it could not reasonably be located on an alternative site that would result in less or no harm to the interests; and

iii) measures will be provided (and secured through planning conditions or legal agreements), that would avoid, mitigate or as a last resort, compensate for the adverse effects resulting from development.

4. Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) will be refused planning permission, unless there are wholly exceptional reasons justifying the granting of planning permission. 5. Where development has the potential to affect a proposed wildlife site the developer must undertake surveys and assessments to determine whether the site meets the criteria for Local Wildlife Site status."

Policy ENV3: Biodiversity

"1. Development that will conserve, restore and enhance biodiversity in the district will be supported. All development should provide a net gain in biodiversity where possible. As a minimum, there should be no net loss of biodiversity. All proposals should be supported by evidence to demonstrate a biodiversity net gain using a recognised biodiversity accounting metric. South Oxfordshire District Council Local Plan 2035 DECEMBER 2020 169

2. Development proposals which would result in a net loss of biodiversity will only be considered if it can be demonstrated that alternatives which avoid impacts on biodiversity have been fully explored in accordance with the mitigation hierarchy. In the absence of alternative sites or layouts, development proposals must include adequate mitigation measures to achieve a net gain of biodiversity. Where harm cannot be prevented or adequately mitigated, appropriate compensation measures will be sought, as a last resort, through planning conditions or planning obligations (depending on the circumstances of each application) to offset the loss by contributing to appropriate biodiversity projects to achieve an overall net gain for biodiversity.

3. Planning permission will only be granted if impacts on biodiversity can be avoided, mitigated or, as a last resort, compensated fully."

6.2 Exit from European Union

6.2.1 The Conservation of Habitats and Species Regulations 2017 (as amended), referred to as the '2017 Regulations,' are one of the pieces of domestic law that transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives). Changes to the 2017 Regulations have been made by the Conservation of Habitats and Species (Amendment)

(EU Exit) Regulations 2019 (referred to as the '2019 Regulations') to transfer functions from the European Commission to the appropriate authorities in England and Wales.

6.2.2 The amendments prescribed by the 2019 Regulations allow existing protections afforded by current wildlife legislation and transposed EC Council Directives to be operable from 01 January 2021.

6.2.3 The 2019 Regulations protect rare and vulnerable birds and the habitats that they depend upon. This is achieved in part through the classification of Special Protection Areas (SPAs). The Habitats Directive aims to protect plants, habitats and animals other than birds. This is achieved in part through the creation of Special Areas of Conservation (SACs). SPAs and SACs are collectively referred to as the 'National Site Network'.

6.2.4 Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the National Site Network, however, all Ramsar sites remain protected in the same was as SACs and SPAs.

6.3 National Planning Policy Framework

6.3.1 The National Planning Policy Framework (NPPF) was updated in December 2024 (MHCLG, 2024) thereby replacing the older version of December 2023.

6.3.2 In relation to planning for climate change, para 162 states: Plans should take a proactive approach to mitigating and adapting to climate change, taking into account the long-term implications for flood risk, coastal change, water supply, biodiversity and landscapes, and the risk of overheating and drought from rising temperatures. Policies should support appropriate measures to ensure the future health and resilience of communities and infrastructure to climate change impacts, such as providing space for physical protection measures, or making provision for the possible future relocation of vulnerable development and infrastructure.

6.3.3 The new framework sets out in section 15 that planning policies and decisions should contribute to and enhance the natural and local environment by … (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs (Para 187).

6.3.4 To protect and enhance biodiversity and geodiversity (Para 192), plans should:

- identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and

areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

6.3.5 When determining planning applications, local planning authorities should apply the following principles (Para 193):

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

6.3.6 The following should be given the same protection as habitats sites (Para 194):

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

6.3.7 The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site (Para 195).

6.4 Hazel Dormice

6.4.1 Hazel dormice and their nest sites are protected by UK legislation.

6.4.2 The Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

6.4.3 Additionally, The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to:

- Deliberately capture or kill a dormouse;
- Deliberately disturb a dormouse;
- Damage or destroy a breeding place or resting site of a dormouse; and
- Keep, transport, sell or exchange or offer for sale or exchange alive or dead hazel dormouse or any part of a hazel dormouse.

6.5 Edible Dormouse

6.5.1 Edible dormouse (*Glis glis*) are protected under the Wildlife and Countryside Act 1981 (as amended) Sections 16(3)(f) and 16(3)(h), and section 16(5) which means a licence is required from Natural England to permit trapping for the purposes of preserving public health and public safety, and to prevent serious damage to crops, fruit, growing timber and others forms of property. Edible dormice captured alive cannot be released and must be humanely dispatched.

7 References

Bright, P.W., Morris, P.A. and Mitchell-Jones, T. (2006). *The Dormouse Conservation Handbook Second Edition*. English Nature, Peterborough.

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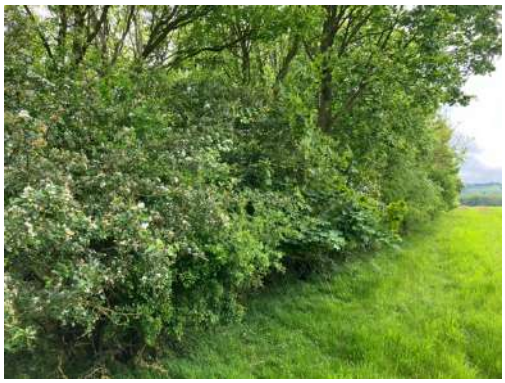
Gov.uk (2015). *Guidance. Hazel or common dormice: surveys and mitigation for development projects*. Natural England, Worcester.

MHCLG (2024). *National Planning Policy Framework*. Ministry of Housing, Communities & Local Government, Worcester.

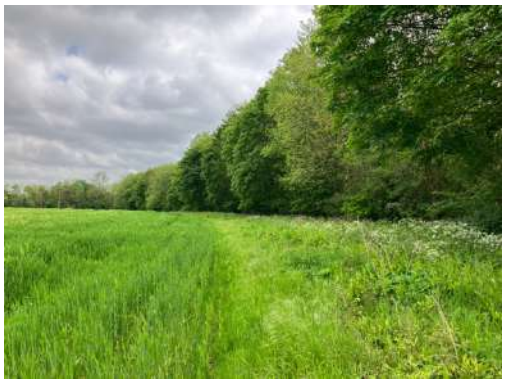
Natural England (2011). *Interim Advice Note - Dormouse surveys for mitigation licensing – best practice and common misconceptions.* Natural England

Appendix 1 - Photographs

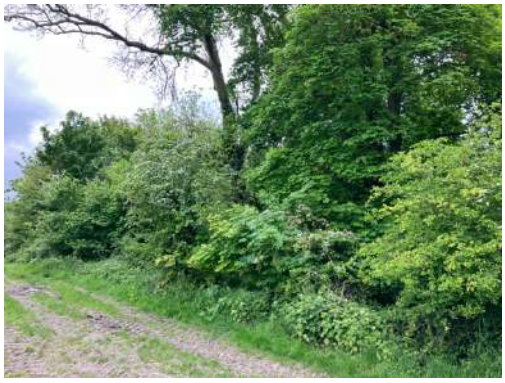
Photograph 1: Central woodland belt in the northern half of the site



Photograph 2: Woodland belt on the eastern site boundary



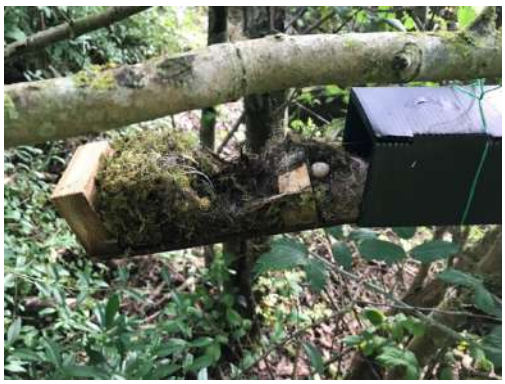
Photograph 3: Broadleaved woodland within the site boundary



Photograph 4: Woodland parcel on the western site boundary (southern half)

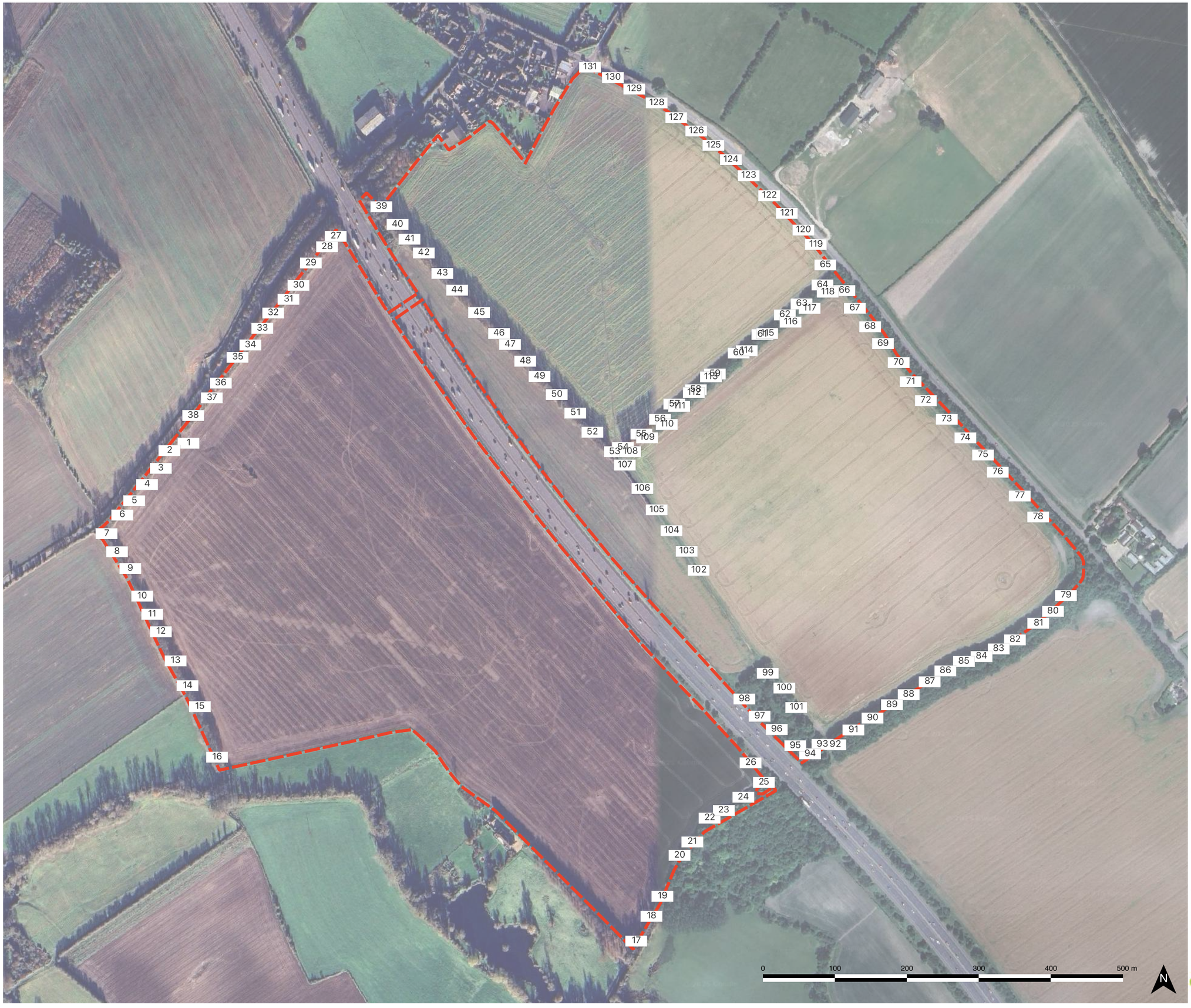
Photograph 5: Edible dormouse

Photograph 6: Abandoned bird's nest



Appendix 2 - Figures

Figure 1: Location of Dormouse Nest Tubes (EBD_3850_DR004)



LEGEND

Survey area (85.75 ha)

Dormice tube

Location (1:2,500,000):

Project:

Postcombe and Lewknor Solar Farm

Client:

Solar 2 Project E Limited

Drawing Title:

Dormouse Tube Locations

Drawing No.: EBD_3850_DR003

Scale (@A3): 1:5,000

Central Eastings, Northings: 471111, 198878

Date Drawn: 21/03/2025

Drawn by: JE

Approved by: BG

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