Herdwick Ecology

Preliminary Ecological Appraisal

Mead Acre, The Street, Milton Lilbourne, Wiltshire SN9 5LQ

For Tuttle Architectural Services on behalf of Mr & Mrs Bowers

September 2023

Report Reference: 366/R1/2023/V1

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1.0 Introduction

1.1 Herdwick Ecology Ltd has been commissioned by Tuttle Architectural Services on behalf of Mr & Mrs Bowers to undertake a Preliminary Ecological Appraisal (PEA) at Mead Acre, The Street, Milton Lilbourne, Wiltshire SN9 5LQ (Central Reference SU1899 6095) to support a planning application for the change of use of land from agricultural to equestrian, erection of stables and store building, and associated hardstanding.

1.2 This report has been prepared to support a planning application and aims to:

- Describe and evaluate the habitats present within the study area;
- Collate relevant biological records and assess their significance;
- Identify any protected species issues or potential issues that may exist; and
- Assess possible ecological constraints to development and make recommendations to avoid, minimise and mitigate for any potential impacts; and
- Set out opportunities for net gain and ecological enhancements in line with relevant planning policy, legislation and other published guidance.

1.3 This report has been prepared by Ceri Griffiths, Director at Herdwick Ecology, who is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Reference is made to CIEEM Guidelines for Preliminary Ecological Appraisal[1] and BS 42020:2013 Biodiversity - Code of practice for planning and development[2].

2.0 Legislation and Planning Policies

2.1 In carrying out this assessment relevant legislation, planning policies, and best practice guidelines were consulted and include:

- Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- National Planning Policy Framework 2021 (NPPF);
- Wiltshire Local Planning Policy.

National Planning Policy Framework (NPPF) 2021

2.2 National planning policy on biodiversity and conservation is set out in the National Planning Policy Framework (NPPF). This emphasises that the planning system should seek to minimise impacts on

[1] CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal* (2nd. Ed.) CIEEM
[2] BSI (British Standards Institute) BS4202:2013 *Biodiversity – A code of practice for planning and development*. BSI, London.

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biodiversity and provide net gains in biodiversity wherever possible as part of the Government's commitment to halting declines in biodiversity and establishing coherent and resilient ecological networks. Chapter 15: Conserving and Enhancing the Natural Environment, is of particular relevance to this report as it relates to ecology and biodiversity. Relevant policies are set out below:

2.3 Paragraph 179: "*To protect and enhance biodiversity and geodiversity, plans should: a) 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 b) 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…*

2.4 Paragraph 180 states: "When determining planning applications, local planning authorities should apply the following principles:

a) '*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'*

b) Relates to developments affecting SSSI

c) Relates to developments affecting irreplaceable habitats, such as ancient woodland

d) '*Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity'.*

2.5 The Government Circular 06/2005, which is referred to by the NPPF, provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

2.6 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2013, which involves the following step-wise process:

- Avoidance – avoiding adverse effects through good design;
- Mitigation – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- Compensation – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- Enhancement – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

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2.7 The measures for avoidance, mitigation, compensation, and enhancement should be '*proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development'*

Environment Bill

2.8 The Environment Bill received Royal Assent on 9th November 2021, becoming the Environment Act; this includes the provision of biodiversity gain for developments in England, which will be mandated through an amendment to the Town and Country Planning Act 1990. The two-year transition period that follows Royal Assent means that mandatory biodiversity gain is anticipated to become law in early 2024. Whilst there is a transition period, the BNG principles are set out in the NPPF and the use of the DEFRA metric can be the most effective way of demonstrating a net gain.

Local Plan

2.9 The Wiltshire Core Strategy Development Plan Document ('the plan') was formally adopted on 20 January 2015. The plan provides a positive and flexible overarching planning policy framework for Wiltshire for the period up to 2026. Policy 50 'Biodiversity and Geodiversity' states that: '*Development proposals must demonstrate how they protect features of nature conservation and geological value as part of the design rationale. There is an expectation that such features shall be retained, buffered, and managed favourably in order to maintain their ecological value, connectivity and functionality in the long-term…. All development proposals shall incorporate appropriate measures to avoid and reduce disturbance of sensitive wildlife species and habitats throughout the lifetime of the development.* The policy goes on to state that all developments should seek opportunities to enhance biodiversity.

Species Protection

2.10 A number of species, including all bats and great crested newts, are afforded protection under The Wildlife and Countryside Act 1981 (as amended)

2.11 Under this legislation, a person is guilty of an offence if a person intentionally or recklessly:

- disturbs any animal while it is occupying a structure or place which it uses for shelter or protection;
- obstructs access to any structure or place which any animal uses for shelter or protection.

2.12 In addition the protection afforded through UK legislation, further protection is provided to a small group of species, commonly referred to as 'European Protected Species' under the Conservation of Habitats and Species 2017 (as amended) (also known as the Habitats Regulations)., including bats and great crested newts.

2.13 With regards to European Protected Species listed under Schedule 2 of the Act, it is an offence to:

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- Intentionally or deliberately capture or kill, or intentionally injure the animal;
- Deliberately disturb the animal or intentionally or recklessly disturb them in a place used for shelter or protection;
- Damage or destroy a breeding site or resting place;
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.

2.14 The NERC Act also listed species of principle importance under Section 41 of the Act. This places further duties on the LPA to have due regard for the conservation of these species, such as hedgehog or certain bird species, which may be present on-site.

3.0 Methodology

Data Search

3.1 A data search was undertaken to look for designated sites and records of protected and notable species. This can provide important contextual information to gain an understanding of the site and surrounds. Online sources were reviewed, such as MAGIC[3] and NBN Gateway[4].

3.2 A data search from the local records centre has not be undertaken to inform this appraisal.

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3.3 The site was surveyed on 22nd September 2023 by Ceri Griffiths, Director of Herdwick Ecology, with full membership of Chartered Institute of Ecology and Environmental Management (CIEEM) and a Natural England bat and great crested newt licence holder. Weather conditions were sunny and dry, with a temperature of 20°C. Habitats and obvious features within the site were assessed following the Joint Nature Conservation Committee's Phase 1 Habitat Survey Method[5] (JNCC, 2010) as amended in 1995 by the Institute of Environmental Assessment[6] (IEA, 1995) and also classified under the UKHab criteria to inform the Biodiversity Net Gain calculations. The potential for the site to support protected or notable species was also assessed.

3.4 Where access allowed, adjacent habitats were also considered in order to assess the site within the wider landscape, and to provide information with which to assess possible impacts of the proposed development.

[3] https://magic.defra.gov.uk/
[4] https://nbnatlas.org/
[5] JNCC 2010. *Handbook for Phase 1 Habitat Survey*. Joint Nature Conservation Committee, Peterborough
[6] IEA 2015 *Guidelines for Baseline Ecological Assessment* Institute of Environmental Assessment

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4.0 Baseline Conditions

Site Location



Plate 1: Site location (Google, September, 2023)

4.1 The site is located within a rural area in the village of Milton Lilbourne, approximately 2km to the east of Pewsey in Wiltshire. It lies on the northeastern side of the village, which comprises a number of individual properties of varying age and construction within mature gardens. The wider landscape is predominately agricultural under an arable regime interspersed with hedgerows and scattered mature trees.

4.2 The application site lies to the northwest of the field, which is currently well maintained pasture, with occasional scattered trees.

Data Search

Designated Sites

4.3 The River Avon Special Area of Conservation (SAC) lies 1.9km to the west of the site. The Jones's Mill Site of Special Scientific Interest (SSSI) is the underlying SSSI component of this SAC which is an area of fen vegetation, scrub and woodland lying along the headwaters of the Salisbury Avon north east of Pewsey. It represents the best known example of a calcareous valley mire in Wiltshire.

4.4 The development falls within the River Avon nutrient neutrality catchment and the change of use and construction of equestrian buildings could have an adverse effect on the integrity of this site. A separate

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Nutrient Neutrality document has been prepared to support the application and hence it is not discussed further within this report.

4.5 In addition, the Salisbury Plain Special Protection Area (SPA) lies 6km to the south and hence sits within the 6.4km recreational pressure buffer zone for this SPA. However, as the proposals do not result in an increase in overnight accommodation, there will be no increase in recreational pressure and hence no adverse effects on the Salisbury Plain SPA are predicted and the application can be screened out of the Appropriate Assessment.

Species

4.6 There are six European Protected Species (EPS) licences for bats within 4km of the site:

- Common pipistrelle, brown long-eared and serotine bat resting place (dated 2016 – 2021) – 1.6km northwest
- Soprano pipistrelle bat resting place (dated 2019) – 1.9km north
- Serotine bat resting place (dated 2020 – 2026) – 2.2km north
- Common & soprano pipistrelle, brown long-eared bat resting place (dated 2019 -2024) – 2.2km north
- Common & soprano pipistrelle, brown long-eared and serotine bat resting place (dated 2017) – 2.5km northwest
- Soprano pipistrelle, brown long-eared and serotine bat resting place (dated 2014 – 2019) 2.8km southwest

4.7 In addition, three ponds within 4km of the site were surveyed via eDNA in 2018, none of which returned a positive result for great crested newts.

Habitats

4.8 There is a single parcel of Priority Habitat identified on 'MAGIC'. It is a small area of traditional orchard that lies 350m to the south and is associated within the Manor House. Within the wider landscape, there numerous parcels of deciduous woodland.

4.9 No waterbodies have been identified within 500m of the site.

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4.10 The site comprises a single pastural field with a closely mown sward. The improved grassland is species poor and dominated by perennial rye-grass *Lolium perenne*, with occasional Yorkshire fog *Holcus lanatus* and rare crested dog-tail *Cynosurus cristatus*. There are large tussocks of false oat grass *Arrhenatherum elatius* and occasional cock's-foot *Dactylis glomerata* along the fence line and within the treeline road embankment. Forbs are limited but with frequent creeping buttercup *Ranunculus*

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repens, ribwort plantain *Plantago lanceolata*, white clover *Trifolium repens* and dandelion *Taraxacum officinale.* It is considered to meet the UKHab criteria of modified grassland due to the dominance rye-grass sward (g4)

4.11 Along the western boundary, there is a line of scrub with three mature hawthorn *Crataegus monogyna* that are heavily ivy covered, poplar hybrids, elder *Sambucus nigra*, laurel *Laurus nobilis*, hazel *Corylus avellana*. The ground flora is dominated by nettle *Urtica dioica* with bramble *Rubus fruticosus* agg. and hogweed *Heracleum sphondylium*.

4.12 A laurel hedge forms the southern boundary, with the northern boundary, along the road, comprising a recently planted *Leylandii* hedge, leading to a new native hedgerow with whips comprising hawthorn, with occasional blackthorn *Prunus spinosa* and holly *Ilex aquifolium*. The road embankment comprises a number of mature trees – oak *Quercus robur*, horse chestnut *Aesculus hippocastanum* and *lime Tilia* x *europaea* with a mature hazel understorey.

4.13 To the southeast of the application boundary there are two newly planted trees – rowan *Sorbus aucuparia* and two apple *Malus spp.* Further to the south are two large mature trees, one beech *Fagus sylvatica* and one pin oak *Quercus palustris*.



Plate 2: Looking west along the northern boundary to the application site

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Species

Bats

4.14 There are no buildings or trees within the application boundary and no potential roost features were noted within the trees immediately adjacent. Therefore, there are no bat roosts onsite. The field and tree line are likely to offer foraging and commuting habitat for bats. However, due to the small scale of the development and size of site, no further survey or assessment is required but avoidance, minimisation and enhancement measures have been set out in Section 5.

Badgers

4.15 A mammal push under was identified along the northern boundary. The grassland may offer some foraging habitat for badgers but the application site itself does not provide suitable sett building habitat. Precautionary construction measures have been set out in Section 5.

Breeding Birds

4.16 The surrounding trees and dense laurel hedges will offer nesting and foraging opportunities for common species of garden bird. Given the small scale of the development, no further surveys are recommended. Best practice avoidance, mitigation and enhancement measures to be implemented are provided in Section 5 below.

Amphibians - Great crested newts

4.17 There are no ponds within 250m of the site and the well maintained grassland is not considered optimum habitat for great crested newts. The tree line, hedgerows and gardens to the west may offer some terrestrial habitat. As such, no further survey or assessment is required, but best practice site clearance methods should be adopted, as detailed in Section 5.

Reptiles

4.18 As with the amphibians, the well maintained grassland does not offer suitable habitat for reptiles. However, the periphery of the site may provide potential habitat for common species of reptile. Given the nature and scale of development, no further survey is required. Avoidance, mitigation and enhancement measures to be implemented are provided in Section 5 below.

5.0 Avoidance, Mitigation and Enhancement Measures

5.1 In line with National and Local planning policies, developments should seek to ensure the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species populations. Therefore the following section sets out avoidance and mitigation

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measures that should be implemented, together with enhancement opportunities, with the aim of delivering a net gain in biodiversity.

5.2 No further surveys are required to inform the application but appropriate measures to be implemented during construction are set out below.

Avoidance and Protection of Features

Design and Location of Proposed Development

5.3 The site is considered to be of low ecological value comprising well maintained grassland (UKHabs 'Modified grassland g4). The offsite trees will offer some habitat for species and impacts to the boundary features and trees should be avoided.

Mitigation Measures

5.4 Given the low ecological value of the site, there are minimal mitigation requirements but following measures should be implemented:

- The lighting design should be sensitively designed and should adhere to the principles set out in the ILP Guidance Note 08/18 Bats and artificial lighting in the UK. The northern boundary must remain unlit.
- It is not anticipated that there will be any significant vegetation removal. Should this change, then the following approach must be adopted. Any vegetation removal must avoid the breeding bird season, which generally runs from March to August. If works are to be undertaken during this time then a check for breeding birds should be undertaken by an experienced ecologist prior to works starting. If an active nest is found then works will need to wait until the chicks have fledged, or an appropriate buffer zone implemented to ensure no disturbance to the active nest.
- Foundation trenches and all excavations must either be covered overnight or must have scaffolding boards, or similar, placed within them to ensure that any animals that fall in are able to escape.
- Raise stored materials (that might act as temporary resting places for species such as amphibians and reptiles) off the ground, e.g. on pallets.
- Should any fencing be installed, occasional gaps must be left at the base (130 x 130mm) to allow movement of hedgehogs.

Enhancement Opportunities

5.5 The proposed development should seek to achieve a net gain in biodiversity in line with National and Local planning policies. There is a separate Biodiversity Net Gain Report to ensure there is no net loss in biodiversity. In addition, the following will be incorporated into the design:

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- Bat and bird boxes are to be installed on the new building:
    - General bird boxes i.e. sparrow terrace[7] or similar should be placed on the northern and western elevation, on the gable and below the eaves.
    - Two swallow nest cups[8] should be installed within the open stables on the open timber rafters.
    - Two 1FR bat tubes[9] should be installed within the timber cladding on the southern elevation of the machinery store. They should be positioned as high as possible, close to the apex.
- Habitat boxes or log piles for invertebrates, hedgehogs and reptiles can be placed within the adjacent vegetation along the BNG enhancement area, to provide further opportunities for species
- There are significant opportunities to adopt a wildlife friendly management regime within the wider ownership boundary. Additional trees, including fruit bearing trees, could be planted, together with additional hedgerows and/or scrub. Where hedgerows are to be planted, native species rich plants should be used as this offer greater foraging opportunities for a range of wildlife. Additional bird and bat boxes could be placed within the two mature trees onsite.

5.6 Taking the above into account, no ecological constraints have been identified and no further surveys or assessment are required. Enhancement measures have been included in line with local planning policies. A separate Biodiveristy Net Gain Assessment has been prepared to accompany the application which demonstrates a no net loss.

[7] Sparrow Terrace Nest Box | The Nestbox Company
[8] Eco Swallow Nest | NHBS Practical Conservation Equipment
[9] Bat Tube 1FR » Schwegler Natur (schwegler-natur.de)

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Figure 1: Phase I Habitat Map and UKHab codes



Key

- Application Boundary
- Intact hedge - non-native
- Hedge - native species-rich
- Individual Trees
- Dense Scrub (h3h,10,16, 47, 48)
- Improved grassland (g4, 58)

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