Preliminary Ecological Appraisal & Biodiversity Net Gain Assessment

Oak Cottage, Norton, Bromyard, Herefordshire, HR7 4PA

Prepared on behalf of Jake Walden

ISSUE V2.0

June 2025

Sharpe Ecology Ltd
T: 07968 757855
www.sharpeecology.co.uk

Table of Contents

Non technical summary

This report has been prepared by Sharpe Ecology, on behalf of Jake Walden. The report has been prepared to inform an application for new holiday let accommodation and associated infrastructure, and a retrospective change of use application at Oak Cottage, Norton, Bromyard, Herefordshire, HR7 4PA.

A desk study and extended phase 1 habitat survey was undertaken by Sharpe Ecology in January 2025. This report details the findings of the desk study and field survey and provides an ecological baseline of the habitats present and an indication of the likely impacts of the proposals on habitats and biodiversity.

The site (NGR SO662552) consisted of a rectangular grass field containing boundary trees, a pond, buildings, garden and gravel driveway (to the northeast of the field) and a dirt access track to the northwest. The application site was bordered by grass fields with boundary hedgerows and trees to the northwest, northeast and southeast, and a small woodland stand to the southwest.

The proposals for the holiday lets include the siting of four bell tents on timber decking and two shower and toilet blocks (with sedum roofs), the creation of gravels pathways and car parking, and new landscaping including the planting of native trees, native hedgerow and native mixed scrub.

The proposals would not result in any impacts on statutory or non-statutory designated sites or priority habitats, and vegetation loss would not be significant in ecological terms other than for the species it may support.

Reasonable avoidance methods set out in this report will be adhered in relation to hedgehog and great crested newt.

In the highly unlikely event that a great crested newt is encountered, all work will cease, and the animal will be left in situ until an appropriate course of action has been agreed in writing with the ecologist.

Subject to the aforementioned mitigation, no significant impacts on any protected or priority species, including nesting birds, bats, badger, reptiles, great crested newt or invertebrates, are anticipated.

General biodiversity enhancement recommendations for the site include the provision of 2-3 bat boxes on suitable trees along the northwest edge of the field, and the planting of at least 27 new native trees on site, along with new mixed scrub planting and the creation of a new species-rich hedgerow.

The baseline (pre-development) value of land within the redline boundary has been calculated, using the statutory biodiversity metric, as having a value of 3.35 habitat units and 1.43 hedgerow units.

The planting of a minimum of 27 native trees, along with native mixed scrub and native species-rich hedgerow planting, would result in a 10.22% net gain in the habitat units (+0.34 habitat units) and a 42.24% net gain in hedgerow units (+0.60 hedgerow units), thereby satisfying the trading rules and exceeding the mandatory minimum 10% net gain.

The pre-development biodiversity value of the site was calculated on 05.06.2025 using the 23.07.2024 version of the metric. There has been no loss (or degradation) of any onsite habitat and the application site does not contain any irreplaceable habitat.

1. Introduction

1.1. Purpose of report

1.1.1. This report has been prepared by Sharpe Ecology, on behalf of Jake Walden. The report has been prepared to inform an application for new holiday let accommodation and associated infrastructure, and a retrospective change of use application at Oak Cottage, Norton, Bromyard, Herefordshire, HR7 4PA.

Preliminary Ecological Appraisal

1.1.2. A desk study and extended phase 1 habitat survey was undertaken by Sharpe Ecology in January 2025 by an experienced ecologist. This report describes the findings of the desk study and field survey, describes the baseline ecological conditions of the site and sets out the need for further surveys.

1.1.3. With reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Preliminary Ecological Appraisal 2017, the aims of this ecological appraisal are to:

- Identify any sites or features likely to be of conservation value within or close to the proposed development site;
- Establish baseline conditions and identify any features, habitats or species which could potentially constrain the proposed development;
- Provide an assessment of likely ecological impacts and set out mitigation measures;
- Provide recommendations for enhancement in line with national, regional and local policies relevant to nature conservation and biodiversity;
- Provide advice on measures to be taken in relation to designated sites and legally protected or otherwise notable species.

1.1.4. The survey and report follow the Chartered Institute for Ecology and Environmental Management's best practice guidelines for preliminary ecological appraisal (CIEEM 2017) and ecological impact assessment (CIEEM 2018) and relevant survey handbooks, best practice guidance, including the UK Habitats Classification (UKHab Ltd, 2023), and BS 42020:2013. The report has been completed by a professional ecologist, who is a full member of the Chartered Institute for Ecology and Environmental Management.

Biodiversity Net Gain Assessment

1.1.5. Biodiversity net gain (BNG) is a strategy to develop land and contribute to the recovery of nature. It is a way of making sure the habitat for wildlife is in a better state than it was before development. It is also an approach where developers work with local governments, wildlife groups, land owners and other stakeholders in order to support their priorities for nature conservation.

1.1.6. BNG follows the 'mitigation hierarchy' process of first avoiding and minimising biodiversity loss and then providing positive habitat intervention (restoration, compensation and enhancement) to achieve a net gain in biodiversity, and the 'biodiversity gain hierarchy', which emphasises that all efforts to avoid and mitigate for any impacts to significant on-site habitat must be considered, and compensation for impacts to any on-site habitats and biodiversity gains must be considered on-site first, followed by the use of registered off-site biodiversity gains and - as a last resort- the use of statutory credits.

1.1.7. The BNG assessment within this report aims to:

- provide baseline data to classify the type, distinctiveness, condition and strategic significance of habitats prior to and post development
- ensure that the baseline habitat conditions are classified in a robust and consistent manner, and that classification is based on the best available data at the time of assessment
- clearly identify data collection methods and any limitations
- calculate baseline pre- and post-development habitat units for the site based on the current development proposals
- achieve BNG on-site wherever possible, with off-site contribution measures being considered as an alternative option if required

2. Legislation and planning policy

2.1. Local planning policy

2.1.1. Policy LD2 (Biodiversity and geodiversity) within the Herefordshire Local Plan (formally adopted in October 2015) states:

Development proposals should conserve, restore and enhance the biodiversity and geodiversity assets of Herefordshire, through the:

1. retention and protection of nature conservation sites and habitats, and important species in accordance with their status as follows:

   a) Development that is likely to harm sites and species of European Importance will not be permitted;

   b) Development that would be liable to harm Sites of Special Scientific Interest or nationally protected species will only be permitted if the conservation status of their habitat or important physical features can be protected by conditions or other material considerations are sufficient to outweigh nature conservation considerations;

   c) Development that would be liable to harm the nature conservation value of a site or species of local nature conservation interest will only be permitted if the importance of the development outweighs the local value of the site, habitat or physical feature that supports important species.

   d) Development that will potentially reduce the coherence and effectiveness of the ecological network of sites will only be permitted where adequate compensatory measures are brought forward.

2. restoration and enhancement of existing biodiversity and geodiversity features on site and connectivity to wider ecological networks; and

3. creation of new biodiversity features and wildlife habitats.

Where appropriate the council will work with developers to agree a management strategy to ensure the protection of, and prevention of adverse impacts on, biodiversity and geodiversity features).'

2.2. National planning policy

2.2.1. In accordance with the National Planning Policy Framework 2024, the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, and promote the protection and recovery of priority species populations and ecological networks.

2.2.2. When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying 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) 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;

c) 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 reasons70 and a suitable compensation strategy exists; and

d) 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.

2.2.3. The Government's 25 Year Environment Plan (HM Government, 2021) sets out the Government's goals for improving the environment within a generation and leaving it in a better state to that which it inherited. This ambition is supported by the National Planning Policy Framework (NPPF) 2023, which states that the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils, and minimising impacts on and providing net gains for biodiversity, including by establishing more resilient, coherent ecological networks.

2.3. Legislation

2.3.1. Certain habitats and species are subject to protection as laid out in the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. The following are of particular relevance to this assessment:

- In England all species of bat and their breeding or resting places (roosts) are fully protected under the Conservation of Habitats and Species Regulations 2017 and Section 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to deliberately, intentionally or recklessly:
    - Kill, injure or capture a bat;
    - Obstruct access to any structure or place used for shelter or protection by bat;
    - Disturb a bat while it is occupying a structure or place which is uses for that purpose;
    - Disturb bats in such a way it would affect the ability of any significant group of bat to survive, breed, rear or nurture or affect a local distribution or abundance;
    - Damage or destroy a breeding or resting place of a bat.
- In England great crested newts *Triturus cristatus* and their places of shelter are fully protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981 (as amended). This legislation makes it an offence to deliberately, intentionally or recklessly:
    - Kill, injure or capture a great crested newt;
    - Obstruct access to any structure or place used for shelter or protection by a great crested newt;

- Disturb a great crested newt while it is occupying a structure or place which is uses for that purpose;
- Take or destroy the eggs of a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt.

- In England all birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981 (as amended) making it an offence to:
  - Intentionally kill, injure or take any wild bird;
  - Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
  - Intentionally take or destroy the egg of any wild bird;
  - Certain birds are subject to further protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally, or recklessly, disturb any wild bird listed on this Schedule while it is nest building, or is at, or near, a nest with eggs or young, or disturb the dependent young of such a bird.

- In England, all native species of reptile are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence to intentionally kill or injure any species.

- Badgers *Meles meles* are subject to protection as laid out in the Protection of Badgers Act 1992. This legislation makes it an offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so, or intentionally or recklessly interfere with a sett, which includes damaging or destroying a sett, obstructing access to the entrance of a badger sett, and disturbing a badger whilst it is occupying a sett. Badgers are also given protection from killing or taking by certain means under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended).

2.3.2. In addition, the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on public bodies to consider enhancement of biodiversity within all their actions, and this Act also includes measures to protect species and habitat considered to be of Principal Importance, using species / habitats listed on the UK Biodiversity Action Plan (superseded by the UK Post-2010 Biodiversity Framework covering the period 2011-2020).

2.3.3. Under the Environment Act 2021, all developments in the Town and Country Planning Act 1990, unless exempt, will be required to deliver at least 10% biodiversity net gain. This became mandatory for all but small site developments on 12 February 2024, and became mandatory for small sites on 2 April 2024.

3. Methods

3.1. Desk study

3.1.1. A desk study, to gather information on protected and notable species and habitats within 2km of the site, comprised a review of the following:

- The Multi-Agency Geographic Information for the Countryside (MAGIC) database, available at http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx and accessed in January 2025. The following features were searched for:
  - Nature reserves and country parks
  - Sites of Special Scientific Interest (SSSI's)
  - Internationally protected sites (e.g Ramsar, Special Protection Areas [SPA], Special Areas of Conservation [SAC])
  - Priority Habitats and Species
  - European protected species licences
- Aerial photographs and Ordnance survey maps
- The Herefordshire Biodiversity Action Plan (https://www.herefordshirewt.org/wildlife/biodiversity-action-plans).
- The Herefordshire Local Plan Policies Map (https://www.herefordshire.gov.uk/local-plan-1/local-plan-2021-2041/3)

3.2. Extended phase 1 habitat survey

3.2.1. An Extended Phase 1 Habitat Survey was carried out on 7 January 2025 and involved undertaking a detailed walkover across the site. The extended phase 1 habitat survey was conducted in accordance with the guidelines set out in the Handbook for Phase 1 Habitat Survey (JNCC 2010) and habitats were also classified in accordance with the UK Habitats Classification (UK Habitat Classification Version 2.0, UKHab Ltd 2023). A habitat map (baseline plan) has been provided in Appendix A and photographs have also been included to provide an indication of the nature conservation interest and a clearer picture of existing conditions.

3.3. Great crested newt pond habitat suitability index assessment

3.3.1. Aerial photographs and Ordnance Survey maps were used to identify the location of any pond within 1km of the site.

3.3.2. Any accessible pond within 250m of the site was then assessed using the Habitat Suitability Index (HSI) (Oldham *et al*. 2000). An HSI is a numerical index, between 0 and 1. 0 indicates unsuitable habitat, 1 represents optimal habitat. The HSI for the great crested newt incorporates ten suitability indices, all of which are factors thought to affect great crested newts. These factors are: field location, pond area, pond drying, water quality, shade, fowl, fish, ponds (number within 1km), terrestrial habitat and macrophytes.

3.3.3. Based on the HSI calculation, the waterbody was then assigned an HSI score, which defines pond suitability for great crested newts where <0.5 = poor, 0.5-0.59 = below average, 0.60-0.69 = average, 0.70-0.79 = good, and >0.8 = excellent.

3.4. Biodiversity net gain assessment

Guidance

3.4.1. The following publications have been used to inform the BNG assessment:

- The Statutory Biodiversity Metric calculation tool (23 July 2024) and The Statutory Biodiversity Metric User Guide, July 2024
- Biodiversity Net Gain: Good practice principles for development (CIEEM, CIRIA, IEMA, 2016) and Biodiversity net gain. Good practice principles for development. Part A: A practical guide (Baker, J., Hoskin, R & Butterworth, N., 2019).
- Biodiversity Net Gain Report & Audit Templates (CIEEM, July 2021).

Condition assessment and strategic significance

3.4.2. The condition each habitat type on site was assigned using the statutory biodiversity metric condition assessment sheets where required. Assessment criteria were followed for each broad habitat type.

3.4.3. The strategic significance of each habitat type was assessed using the published plans, strategies and policies reviewed as part of the desk study.

Calculations of biodiversity units

3.4.4. The statutory biodiversity metric (23 July 2024) was used to calculate the change in biodiversity units and the overall percentage of biodiversity gain/loss achieved.

3.4.5. The pre-development baseline habitat areas were calculated using habitat measurements of the baseline habitat types illustrated on the Phase 1 Habitat Map provided in Appendix A. The post-development habitat type areas calculations were based on the proposed site plan provided in Appendix B.

Competency statement

3.4.6. The field survey and metric calculations were undertaken by Fiona Sharpe BSc (Hons), PhD, MCIEEM, who is a consultant ecologist with over 20 years of professional ecological survey and assessment experience, and who has been involved in the mitigation design of a NSIP assessed using the Biodiversity Metric 3.0 and numerous assessments using the statutory metric, who has attended the CIEEM Spring Conference (2022) on biodiversity net gain, and CIEEM webinars on biodiversity net gain and principles of offsite BNG delivery (2023), and who has also worked with a Local Planning Authority to help prepare for the mandatory BNG requirements for development, which involved a review of existing plans, policies and process, the updating of biodiversity policies as part of the local plan review, the production of BNG guidance (external and internal), the provision of BNG training sessions and the development of appropriate process to deal with BNG applications from pre-application to post-permission.

3.5. Assumptions and Limitations

3.5.1. The optimum survey period for Extended Phase 1 Habitat Surveys in the south of England is generally late March/early April to mid-October, although this does vary according to habitats, e.g. woodlands are best surveyed in spring, grasslands in mid-summer and heathlands in autumn. Although surveys can be conducted throughout the year, some plant and animal species that might be present may not have been evident during the survey.

3.5.2. The baseline conditions presented in this report represent those at the time of survey and reporting. Variations in these conditions will take place as a result of seasonal factors, and over time.

3.5.3. The following limitations and assumptions apply to the BNG assessment:

- Post-development target condition scores are indicative and dependent on the appropriate management and maintenance of the post-development habitats.

4. Baseline ecological conditions

4.1. Desk study

4.1.1. The MAGiC website showed no statutory designated site located within 2km of the site. Although the site fell within the SSSI Impact Risk Zone for The River Teme SSSI (located 6.4km east), the proposed development did not match any of the development descriptions for which further consultation would be required.

4.1.2. One non-statutory designated site was located within 1km of the site: River Frome Local Wildlife Site (LWS), located 600m northwest; and Bromyard Downs and adjoining woodland LWS, located 450m east.

4.1.3. There were no priority habitats within, or adjacent to, the site boundary. Priority habitats within 1km of the site included traditional orchard (closest located 215m northeast), deciduous woodland (closest located 250m south) and lowland meadow (closest located 940m southeast).

4.1.4. There was one pond within 500m of the site: a small garden pond within the application site boundary.

4.1.5. No European protected species licences (bats) had been granted within 2km of the site:

4.1.6. No European protected species licences (great crested newts) have been granted within 2km of site. There were three great crested newt class survey licence returns within 2km of the site (great crested newt recorded as present), located 895m southeast, 1.1km south and 1.2km southeast respectively. There were three great crested newt pond surveys 2017-2019 within 2km of the site, with great crested newt recorded as present 1.5km southeast, but recorded as absent 690m east and 860m northeast.

4.1.7. The UK BAP and Herefordshire Biodiversity Action Plan identified a number of habitats and species as priorities for conservation. Those of particular relevance to this site were:

- Great crested newt
- Slow-worm *Anguis fragilis*

4.2. Habitats

Habitats

4.2.1. The site (NGR SO662552) consisted of a rectangular grass field containing boundary trees, a pond, buildings, garden and gravel driveway (to the northeast of the field) and an access track to the northwest. The application site was bordered by grass fields with boundary hedgerows and trees to the northwest, northeast and southeast, and a small woodland stand to the southwest

Modified grassland (g4, 106 – mown, 32 scattered trees)

4.2.2. The grassland field, which formed the majority of the site, consisted of species-poor grassland (modified grass) which was subject to intermittent mowing, resulting in a fairly uniform short sward. The sward was dominated by common grass species, with broadleaved herb coverage forming less than 20% of the sward. Grass species present included Yorkshire fog *Holcus lanatus*, cocksfoot *Dactylis glomerata*, red fescue *Festuca rubra* and meadow grass sp. *Poa sp*, and herb species present included creeping buttercup *Ranunculus repens*, ribwort plantain *Plantago lanceolata*, lesser celandine *Ficaria verna* (towards the more shaded northwest boundary), common

sorrel *Rumex acetosa* and common mouse-ear *Cerastium fontanum*. The sward contained an average of less than 6 species per m^2.

4.2.3. Modified grassland was also located along the access track.

4.2.4. The grassland was categorised within the metric as Grassland – modified grassland and the condition of this habitat was assessed as 'Poor', with the habitat passing five out of the seven condition criteria for this habitat type, but not passing essential criterion A (see condition assessment sheet in Appendix C).

Garden (u1d, 828 vegetated garden)

4.2.5. The garden, located to the southeast of the buildings, consisted of lawn, shrub borders with scattered trees and boundary native hedgerow.

4.2.6. This habitat was categorised within the metric as Urban – vegetated garden and the condition of this habitat is already predefined within the metric as 'Condition Assessment N/A'.

Pond (non-priority) (u1f, 16 tall forbs, 81 ruderal or ephemeral)

4.2.7. There was a small garden pond located along the northeast edge of the field (separated from the main field by a wire fence and line of coppiced trees). The pond area was 27m^2, and the pond contained aquatic and emergent vegetation (including water lily *Nymphaea sp*., flag iris *Iris sp*., and hornwort *Ceratophyllum sp*), which covered approximately 30% of the surface. The pond was surrounded by a mix of sedges, mown grass and shrub planting, and was 30-40% shaded by nearby trees.

4.2.8. This habitat was categorised within the metric as Lakes – ponds (non-priority habitat) and the condition of this habitat was assessed as 'Moderate', with the habitat passing six of the nine condition criteria for this habitat type (see condition assessment sheet in Appendix C).

Native hedgerow (h2a, 11 hedgerow with trees)

4.2.9. There were three hedgerows on site: a short section of native hedgerow along the northeast garden boundary (H1), a short section of native hedgerow along the southeast site boundary within the garden (H2), and a tall native hedgerow with trees along the northeast edge of the access track (H3).

4.2.10. H1 was a managed hawthorn *Crataegus monogyna* hedgerow with occasional hazel *Corylus avellana*, garden privet *Ligustrum ovalifolium*, holly *Ilex aquifolium*, ash *Fraxinus excelsior*, ivy *Hedera helix* and bramble *Rubus fruticosus*.

4.2.11. H2 was a short section of hawthorn hedgerow, with ivy, which divided the garden from the adjacent orchard.

4.2.12. H3 was tall hedgerow, which contained occasional small and medium sized ash trees. The hedgerow consisted of hawthorn, hazel, ash, holly, along with ivy and dog rose *Rosa canina.*

4.2.13. H4 was the end of a well-managed roadside native hedgerow at the site entrance, which contained hawthorn and ivy.

4.2.14. The hedgerows were categorised within the metric as Native hedgerow (H1, H2 & H4) and Native hedgerow with trees (H3) and the condition of the hedgerows were assessed as 'Good', with all hedgerows having no more than 2 criteria failures in total and no more than 1 failure in any functional group, with the exception of H4 which had 2 failures in one functional group as was assessed as 'Moderate' condition (see condition assessment sheet in Appendix C).

Access track and gravel (u1b5 & u1b6)

4.2.15. The driveway/access track leading into the site comprised a mix of tarmac/hardstanding with grass strip along the edges and the middle of the track. Gravel, with no vegetation, formed the car parking and turning area near the house.

4.2.16. This habitat was categorised within the metric as Urban – artificial unvegetated; unsealed surface and the condition of this habitat is already predefined within the metric as 'N/A - Other'.

Buildings (u1b5)

4.2.17. The buildings onsite consisted of the detached house and a collection of outbuildings to the west of the house.

4.2.18. This habitat was categorised within the metric as Urban – developed land; sealed surface and the condition of this habitat is already predefined within the metric as 'N/A - Other'.

Individual trees

4.2.19. There were 41 trees within the application site boundary. The location of the trees on site are shown on the map in Appendix A and details of the species, size class and condition assessment are provided in Table 4.1

TABLE 4.1. DETAILS OF TREES

ID (grid reference)	Species	Size class	Condition assessment
T1 (SO66255521)	Pedunculate oak	Small	Moderate
T2 (SO66225522)	Pedunculate oak	Small	Moderate
T3 (SO66235522)	Pedunculate oak	Small	Moderate
T4 (SO66235523)	Pedunculate oak	Small	Moderate
T5 (SO66235523)	Horse chestnut	Small	Moderate
T6 (SO66235523)	Horse chestnut	Small	Moderate
T7 (SO66245524)	Beech	Small	Moderate
T8 (SO66255524)	Beech	Small	Moderate
T9 (SO66255524)	Beech	Small	Moderate
T10 (SO66255524)	Silver birch	Small	Moderate
T11 (SO66255524)	Silver birch	Small	Moderate

T12 (SO66255525)	Silver birch	Small	Moderate
T13 (SO66275526)	Aspen	Small	Moderate
T14 (SO66275526)	Aspen	Small	Moderate
T15 (SO66275526)	Aspen	Small	Moderate
T16 (SO66275526)	Beech	Small	Moderate
T17 (SO66275527)	Beech	Small	Moderate
T18 (SO66275527)	Beech	Small	Moderate
T19 (SO66275527)	Beech	Small	Moderate
T20 (SO66285527)	Silver birch	Small	Moderate
T21 (SO66285527)	Silver birch	Small	Moderate
T22 (SO66275527)	Silver birch	Small	Moderate
T23 (SO66285527)	Larch	Small	Moderate
T24 (SO66285527)	Hazel	Small	Moderate
T25 (SO66285528)	Beech	Small	Moderate
T26 (SO66295528)	Spruce sp.	Small	Moderate
T27 (SO66295527)	Hazel	Small	Moderate
T28 (SO66295528)	Beech	Small	Moderate
T29 (SO66295527)	Alder	Small	Moderate
T30 (SO66295528)	Alder	Small	Moderate
T31 (SO66295528)	Alder	Medium	Moderate
T32 (SO66295528)	Pedunculate oak	Very Large	Good
T33 (SO66295527)	Willow sp.	Small	Moderate
T34 (SO66295527)	Willow sp.	Small	Moderate

T35 (SO66305527)	Willow sp.	Small	Moderate
T36 (SO66305526)	Willow sp.	Small	Moderate
T37 (SO66305526)	Willow sp.	Small	Moderate
T38 (SO66305530)	Cherry sp.	Small	Moderate
T39 (SO66305530)	Chery sp.	Small	Good
T40 (SO66265533)	Ash	Small	Moderate
T41 (SO66335527)	Ash	Medium	Good

4.2.20. A habitat map and site photographs are provided in Appendix A.

4.3. Species

Birds

4.3.1. Birds noted on or near the site during the walkover survey included great spotted woodpecker *Dendrocopus major*, pheasant *Phasianus colchicus*, stock dove *Columba oenas*, fieldfare *Turdus pilaris*, redwing *Turdus iliacus*, blackbird *Turdus merula*, robin *Erithecus rubecula*, dunnock *Prunella modularis* and bullfinch *Pyrrhula pyrrhula*. The trees, hedgerows and shrub planting provided suitable nesting habitat for common garden and farmland bird species.

Bats

4.3.2. None of the trees on site contained any features (knot holes, cavities, broken limbs, lifted bark etc) suitable for use by roosting bats, with the exception of the mature dead oak tree, which contained dead wood, lifted bark and possible cavities.

4.3.3. None of the buildings would be impacted by the proposals, and so where not subject to a preliminary roost assessment.

4.3.4. The boundary hedgerows and trees provided suitable bat foraging habitat.

Other mammals

4.3.5. No evidence of badgers, such as setts, latrines, dung pits, snuffle holes, well-worn pathways or footprints was noted on site or within 30m of the site boundary (accessible areas only).

4.3.6. The proposed development site did provide some suitable foraging habitat for hedgehog *Erinaceus europeaus*, but the grassland sward was generally unsuitable for supporting other mammal species, such as harvest mouse *Micromys minutus*. The hedgerows would remain unaffected by the proposals and so were not subject to a detailed survey for hazel dormouse *Muscardinus avellanarius*.

Reptiles

4.3.7. No reptiles were encountered on site and there were no features suitable for use by resting or basking reptiles within the site boundary.

Amphibians

4.3.8. The small garden pond located along the northeast edge of the field was separated from the main field by a wire fence and line of coppiced trees measured 27m, and the pond contained aquatic and emergent vegetation (including water lily *Nymphaea sp*., flag iris *Iris sp*., and hornwort *Ceratophyllum sp*), which covered approximately 30% of the surface. The pond was surrounded by a mix of sedges, mown grass and shrub planting, and was 30-40% shaded by nearby trees.

4.3.9. A habitat suitability index (HSI) assessment of the pond was carried out in accordance with Oldham *et al.* 2000:

Table 1. HSI score for the pond

HSI parameters	Criteria	Score
SI1 – Location	Optimal	1
SI2 – Pond area	27sqm	0.05
SI3 – Pond drying	Never dries	0.9
SI4 – Water quality	Moderate	0.67
SI5 – Shade	40%	1
SI6 – Fowl	Absent	1.0
SI7 – Fish	Absent	1.0
SI8 – Ponds with 1km radius	10	0.91
SI9 – Terrestrial habitat	Moderate	0.67
SI10 – Macrophytes	30%	0.6
HSI		**0.63**
Pond suitability		**Average**

4.3.10. The overall suitability of the pond to support great crested newts was assessed as Average.

4.3.11. The terrestrial habitats within the application boundary (gravel and modified grassland) did not contain any features suitable for use by sheltering or resting great crested newts (no dead wood, stone, brash piles etc). No amphibians were encountered on site.

Invertebrates

4.3.12. The species-poor modified grassland, scattered trees, native hedgerows and garden pond had the potential to support a range of common invertebrate species only.

5. Ecological evaluation, mitigation and enhancement

5.1. Proposals

5.1.1. The proposals for the holiday lets include the siting of four bell tents on timber decking and two shower and toilet blocks (with sedum roofs), the creation of gravels pathways and car parking, and new landscaping including the planting of native trees, native hedgerow and native mixed scrub. The proposals would result in the small-scale loss of modified grassland, but all existing trees, hedgerows, shrub planting and the garden pond would be retained.

5.2. Designated sites

5.2.1. Given the size of the proposed development and the distance between the site and any designated site, no statutory or non-statutory designated sites are considered likely to be significant affected by the proposals; therefore, no further survey or assessment in relation to designated sites is required.

5.3. Plants and habitats

5.3.1. All of the habitats and plants within the site are common and widespread, and the loss of modified grassland would not be significant in ecological terms other than for the species that may be supported on the site (see below).

5.3.2. Compensation for the small-scale loss of modified grassland in poor condition, and the biodiversity enhancement of the site, can be achieved through the planting of native trees, native mixed scrub and a species-rich native hedgerow.

5.3.3. Suitable tree species include pedunculate oak *Quercus robur*, silver birch *Betula pendula*, hazel *Corylus avellana*, crab apple *Malus sylvestris*, field maple *Acer campestre*, rowan *Sorbus aucuparia*, wild cherry *Prunus avium*, wild service tree *Sorbus torminalis*, alder *Alnus glutinosa* and native fruit trees such as wild plus *Prunus domesticus* and pear *Pyrus communis*. Indicative locations of new trees are shown on plan in Appendix B.

5.3.4. Suitable hedgerow species include hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, holly *Ilex aquifolium*, field maple Acer campestre, alder buckthorn *Ramnus frangula,* dog wood *Cornus sanguinea*, field rose *Rosa arvensis*, dog rose *Rosa canina*, honeysuckle *Lonceria periclymenum*, guelder-rose *Viburnum opulus*, yew *Taxus baccata* and English elm *Ulmus procera*. The hedgerow should contain at least five native species.

5.3.5. Native mixed scrub planting should comprise a minimum of three native species per block of mixed scrub, with no single species comprising more than 75% of the cover Suitable species are listed above (hedgerow species). Plants should be randomly spaced, and not planted in rows within the block, and the adjacent grassland should be managed to create a mix of tall grassland and forbs.

5.4. Species

Birds

5.4.1. The existing trees, shrub planting and hedgerows would remain intact, and would not be affected by the proposals. Therefore, there would be no loss of bird nesting habitat and no impacts on nesting birds are anticipated.

5.4.2. The planting of new native trees, mixed scrub and species-rich native hedgerow would provide additional nesting opportunities for birds, and would also provide suitable foraging resources for garden and farmland birds.

Bats

5.4.3. There were no trees with potential roost features on site, with the exception of the dead mature oak, and all of the trees would remain in situ. Therefore, impacts on roosting bats are not anticipated and no further survey is required.

5.4.4. The new native tree, mixed scrub and hedgerow planting would provide additional foraging opportunities for bats, and all existing potential foraging habitat (tree line along northwest boundary of field and boundary hedgerows) would be retained.

5.4.5. Although proposals are unlikely to result in any significant adverse effects on foraging/commuting bats, some species are more light-averse than others and there could be a risk of disturbance to foraging bats using the boundary trees/hedgerows and new hedgerow, tree and scrub by any new construction-related lighting or post-construction lighting. This risk should be mitigated through the design and implementation of sympathetic construction and post-construction lighting schemes to avoid all light spill on boundary vegetation. This should be achieved through the design of an appropriate light scheme which:

- minimises lighting levels across the site;
- minimises upward spill of light with the use of directional lighting (angled lighting at no greater than 70°) and low-level dark skies to direct light to where it is needed and away from features of conservation value (e.g. through the use of low level bollard LED lighting);
- considers the timings of lighting required, where possible avoiding lighting in the hours immediately after dusk and before dawn when bats and other nocturnal mammals are most active;
- fitting of lighting with sensors to activate only when required; and
- uses narrow spectrum lights within no UV content, low pressure sodium and warm white LED lighting and/or light sources within the red light spectrum (wavelength light above 600nm with an RA value of 60), not broad spectrum lights (particularly blue-white light) with high UV content, white LED, high pressure sodium, metal halide or mercury lighting.

5.4.6. Guidance on the design of lighting schemes in relation to bats can be found in ‘Bats and Lighting: An overview of current evidence and mitigation guidance’ (Stone 2013), and ‘Bats and artificial lighting at night, guidance note 08/23 (Bat Conservation Trust 2023).

5.4.7. The site can be enhanced for bats through the provision of 2-3 bat boxes located on suitable trees along the northwest edge of the field. Suitable bat boxes include Eco Kent Bat Box, Schwegler 2F with Double Front Panel Bat Box, Eliza Bat Box or Large Multi Chamber WoodStone Bat Box. The bat boxes should be located between 4-6m high, on the southwest, south or southeast side of the tree, with a clear flight path for bat entering and exiting the boxes.

Other mammals

5.4.8. There was no evidence to suggest the presence of badgers on site. However, the site did provide some habitat suitable for supporting hedgehog, and there is a low risk of badgers or hedgehog passing through the site. Therefore, as a precaution, the following

measures are recommended to be put in place during any site clearance works and construction works:

- Measures to reduce or avoid any risk of harm or injury to hedgehog and other mammals during construction works include the covering of or use of mammal ramps within any excavation, trenches or pits.

- If any hedgehog is encountered in the active season (March – October), it should be moved to a place of safety outside the construction zone. If a hibernating hedgehog is encountered it should be left in situ if possible, or if at risk of harm, should be taken to an animal welfare sanctuary and re-released on the site (outside construction zone) once hibernation has ended.

5.4.9. To ensure free movement of hedgehog across the site, gaps measuring at least 12cm wide by 12cm high will be left at the base of any fencing (construction fencing and new permanent fencing).

5.4.10. No impacts on other protected or notable mammal species are anticipated, and no further survey is required.

Reptiles

5.4.11. The habitats on site were deemed unlikely to support reptiles, with the modified grassland not providing the diverse vegetation structure, cover to avoid predators and suitable breeding or hibernation sites required to support a viable reptile population. Therefore, no significant impacts on reptiles are anticipated and no further survey or specific mitigation is required.

Amphibians

5.4.12. The terrestrial habitats on site were assessed as being of low value to amphibians, with the uniform grassland sward lacking any features that could be used by resting or sheltering amphibians. The single pond on site was assessed as being of Average suitability for supporting a breeding population of great crested newts, however, this suitability was reduced by the fact that there were no other ponds within 500m of the site. As such, the on-site pond was deemed unlikely to support great crested newts.

5.4.13. Although the pond was deemed unlikely to support breeding great crested newts, which reduces the likelihood of encountering newts on site, any residual risk of harm to individual great crested newts will be mitigated through the use of reasonable avoidance methods in relation to ground clearance. Reasonable avoidance methods include:

- All contractors on site (including sub-contractors) will be made aware of the risk of encountering individual great crested newt, where to expect them, their protected status and the procedure (see below) to follow in the event that these species are encountered during works. Advice will be given through a toolbox talk and a copy of the method statement will be kept on site and available for inspection at all times.

- The grassland will continue to be regularly mown, to keep the sward short and to discourage newts (and other amphibians) from that area.

- A detailed fingertip search by a licensed ecologist of all areas / suitable features to be impacted by site clearance works will be carried out, followed immediately by a destructive hand search of these areas and removal of features with potential to be used by great crested newts (as identified by on-site ecologist) by hand / using hand-held tools only and under the direct supervision of licensed ecologist.

- Cut and searched areas would then be excavated using a finely toothed digger attachment, under the direct supervision of a licensed ecologist, to rake through the upper soil profile and tree roots.

- Arisings will be taken off site or located outside of the construction zone to prevent great crested newts from using vegetation piles for refuge. Any demolition materials will be stored in skips or similar containers on graveled areas rather than in piles on the ground.

- Any construction-related materials will be stored on pallets to discourage great crested newts using them for refuge or shelter.

- Any trenches left overnight will be covered or provided with ramps to prevent great crested newts from becoming trapped.

- In the highly unlikely event that a great crested newt is encountered, all work will cease, and the newt will be left in situ until an appropriate course of action has been agreed in writing with the ecologist

5.4.14. Significant impacts on great crested newts are not anticipated and no further survey is required.

Invertebrates

5.4.15. The habitats on site were deemed unlikely to support priority invertebrate species. Therefore, no significant impacts on invertebrates are anticipated and no further survey or specific mitigation is required.

6. Biodiversity net gain assessment

6.1. BNG good practice principles for development

6.1.1. This BNG assessment has followed the good practice principles for biodiversity net gain (CIEEM, CIRIA, IEMA 2016). Table 6.1 below lists the BNG principles and states how each one has been considered.

TABLE 6.1. BNG PRINCIPLES AND APPLICATION ON THE PROJECT

Principle	Description	Application on the project
Apply the mitigation hierarchy	Do everything possible to first avoid and then minimise impacts on biodiversity. Only as a last resort, and in agreement with external decision makers where possible, compensate for losses that cannot be avoided. If compensating for losses within the development footprint is not possible or does not generate the most benefits for nature conservation then offset biodiversity losses by gains elsewhere.	The proposed development will not result in the loss of any high or medium distinctiveness habitats. The small-scale loss of low distinctiveness habitat is restricted to modified grassland only. All losses of biodiversity can be compensated within the site boundary through the provision of new native tree, mixed scrub and hedgerow planting.
Avoid losing biodiversity that cannot be offset elsewhere	Avoid impacts on irreplaceable biodiversity - these impacts cannot be offset to achieve NNL/net gain.	The proposed development will not result in any impacts/losses of irreplaceable habitats as none are present on site.
Be inclusive and equitable	Engage stakeholders early, and involve then in designing, implementing, monitoring and evaluating the approach to net gain. Achieve net gain in partnership with stakeholder where possible.	Details on stakeholder input can be supplied where relevant.
Address risk	Mitigate difficulty, uncertainty and other risks to achieving net gain. Apply well-accepted ways to add contingency when calculating biodiversity losses and gains in order to account for any remaining risks, as well as to compensate for the time between the losses occurring and the gains being fully realized.	The difficulty of creating habitat types and the time lag between initial habitat creation and habitats reaching target condition has been accounted for by the post-development habitat multipliers in the statutory metric calculator and is reflected in the final BNG scores. Target habitat types and the condition of created habitats have been assessed using a precautionary approach to

		ensure targeted habitat types are realistic.
Make a measurable net gain contribution	Achieve a measurable, overall gain for biodiversity and the services ecosystems provide while directly contributing towards nature conservation priorities.	New native tree, mixed scrub and hedgerow planting would enable the development to deliver the mandatory 10% net gain on site.
Achieve the nest outcomes for biodiversity	Achieve the best outcomes for biodiversity by using robust credible evidence and local knowledge to make clearly justified choices when: • delivering compensation that is ecologically equivalent in type, amount and condition and that accounts for the location and timing of biodiversity losses • compensating for losses of one type of biodiversity by providing a different type that delivers greater benefits for nature conservation • achieving net gain locally to the development while also contributing towards nature conservation priorities at local, regional and national levels • enhancing existing or creating new habitat • enhancing ecological connectivity by creating more, bigger, better and joined up areas for biodiversity.	There will be no trading down as the loss of modified grassland will be compensated for by new native tree and mixed scrub planting (medium distinctiveness habitat). The development is able to fully compensate for the loss of modified grassland and provide the required 10% net gain on site.
Be additional	Achieve nature conservation outcomes that demonstrably exceed obligations, ie do not deliver something that would occur anyway.	The development is able to provide the required 10% net gain on site.
Create a net gain legacy	Ensure net gain generates long-term benefits by: • engaging stakeholders and jointly agreeing practical solutions that secure net gain in perpetuity • planning for adaptive management and securing	New tree planting will contribute towards the long-term adaptation of the local area to changes in climate.

	dedicated funding for long-term management • designing net gain for biodiversity to be resilient to external forces, especially climate change • mitigating risk from other land uses • avoiding displacing harmful activities from one location to another • supporting local-level management of net gain activities.	
Optimise sustainability	Prioritise BNG and, where possible, optimise the wide environmental benefits for a sustainable society and economy.	BNG has been a priority and the proposed site has been designed to be sustainable with the inclusion of habitats suitable for the change in use of the site.
Be transparent	Communicate all net gain activities in a transparent and timely manner, sharing the learning with all stakeholders.	Full details of the BNG process are included within this report.

6.2. Proposed design

6.2.1. Post-intervention habitat creation/retention, which will be delivered as part of the development, is shown on the proposed site layout in Appendix B, and includes the following:

- Urban – artificial unvegetated; unsealed surface (0.0869ha) – retained access track and gravel ((0.0410 ha) and new pathways, decking and gravel (0.0481 ha). No target condition is required.
- Urban – developed land; sealed surface (0.0503ha) –retained house and outbuildings. No target condition is required.
- Grassland – modified grassland (0.2917ha) – retained grassland. Target condition Poor.
- Urban – vegetated garden (0.0549ha) – retained garden. No target condition is required.
- Urban – other green roof (0.014ha) – new sedum roofs. No target condition is required.
- Heathland and shrub – mixed scrub (0.0219ha) – mixed native scrub. Target condition Moderate.

- Lakes – ponds (non-priority habitat) (0.0027ha) – retained garden pond. Target condition Moderate.

- Individual trees – 41 retained trees (0.2637ha) and 27 new trees (0.1099ha). Target condition Moderate (38 retained trees and 27 new trees) and Good (3 retained trees).

- Hedgerows – 0.048km native hedgerow (retained), 0.078km native hedgerow with trees (retained) and 0.07km species-rich native hedgerow (created). Target condition Good.

6.3. BNG metric

Value of baseline habitats

6.3.1. The baseline habitat values for the land within the redline boundary have been calculated, using the statutory metric, as having a value of 3.35 habitat units and 1.43 hedgerow units.

6.3.2. Summaries of the pre-development habitats, including their area/length, distinctiveness, condition and biodiversity unit value are provided in Tables 6.2 and 6.3 below, and a map of the pre-development baseline habitats is provided within Appendix A.

TABLE 6.2. SUMMARY OF PRE-DEVELOPMENT BASELINE HABITAT UNITS

Habitat type	Area (ha)	Distinctiveness	Condition	Habitat units
Developed land; sealed surface	0.0503	V.Low	N/A	0.00
Artificial unvegetated; unsealed surface	0.0410	V.Low	N/A	0.00
Modified grassland	0.3630	Low	Poor	0.73
Vegetated garden	0.0549	Low	N/A	0.11
Pond	0.0027	Medium	Moderate	0.02
Individual trees	0.1669 0.0968	Medium	Moderate Good	1.34 1.16
Total habitat units	**3.35 (rounded down in metric)**			

TABLE 6.3. SUMMARY OF PRE-DEVELOPMENT BASELINE HEDGEROW UNITS

Habitat type	Length (km)	Distinctiveness	Condition	Hedgerow units
Native hedgerow (H1)	0.022	Medium	Good	0.15
Native hedgerow (H2)	0.022	Medium	Good	0.15
Native hedgerow with trees (H3)	0.078	Medium	Good	1.08
Native hedgerow (H4)	0.010	Medium	Moderate	0.05
Total hedgerow units	**1.43**			

Value of post-development habitats

6.3.3. The post-development habitats have been calculated as having a value of 3.70 habitat units and 2.01 hedgerow units.

6.3.4. Summaries of the post-development habitats, including their area/length, distinctiveness, condition and biodiversity unit value are provided in Tables 6.4 and 6.5 below, and a map of the post-intervention habitats is provided within Appendix B.

TABLE 6.4. SUMMARY OF POST-INTERVENTION HABITAT UNITS

Habitat type	Retained/created	Area (ha)	Distinctiveness	Condition	Habitat units
Developed land; sealed surface	Retained	0.0816	V.Low	N/A	0.00
Artificial unvegetated; unsealed surface	Retained Created	0.0410 0.0481	V.Low	N/A	0.00 0.00
Modified grassland	Retained	0.2917	Low	Poor	0.58
Vegetated garden	Retained	0.0549	Low	N/A	0.11
Pond	Retained	0.0149	Medium	N/A	0.02
Other green roof	Created	0.0014	Low	N/A	0.00
Mixed scrub	Created	0.0219	Medium	Moderate	0.15
Individual trees	Retained Created	0.1669 0.0968 0.1099	Medium	Moderate Good Moderate	1.34 1.16 0.34
Total habitat units	**3.70**				

TABLE 6.5. SUMMARY OF POST-INTERVENTION HEDGEROW UNITS

Habitat type	Retained/ created	Length (km)	Distinctiveness	Condition	Hedgerow units
Native hedgerow (H1)	Retained	0.022	Medium	Good	0.15
Native hedgerow (H2)	Retained	0.022	Medium	Good	0.15

Native hedgerow with trees (H3)	Retained	0.078	Medium	Good	1.08
Native hedgerow (H4)	Retained	0.004	Medium	Moderate	0.02
Species-rich native hedgerow (H5)	Created	0.070	Medium	Good	0.63
Total hedgerow units		**2.03**			

6.3.5. The planting of a minimum of 27 native trees, along with native mixed scrub and native species-rich hedgerow planting, would result in a 10.22% net gain in the habitat units (+0.34 habitat units) and a 42.24% net gain in hedgerow units (+0.60 hedgerow units), thereby satisfying the trading rules and exceeding the mandatory minimum 10% net gain

6.3.6. The headline summary of the metric is provided in Appendix D and the completed metric spreadsheet has been submitted with this report.

6.4. Project implementation and construction plan

6.4.1. A detailed implementation plan, which should include drawings (including detailed landscape planting schedules), management proposals, a construction handover checklist and a timetable for implementation, plus details of those responsible for activities, should be produced.

6.5. Biodiversity net gain management and monitoring plan

6.5.1. A Landscape Ecological Management Plan (LEMP) or Habitat Management and Monitoring Plan (HMMP) should be produced to form the main mechanism for delivering net gain, and the LEMP/HMMP should focus on the delivery of long-term management and monitoring of the native trees, mixed scrub and native hedgerow planting.

7. Conclusions

7.1. Summary of mitigation/enhancement measures

7.1.1. Table 7.1 summaries the need for further survey and general mitigation/compensation and enhancement measures for key ecological receptors to ensure compliance with relevant wildlife legislation and to ensure no significant effects on species or biodiversity

TABLE 7.1 – SUMMARY OF FURTHER SURVEY AND MITIGATION/COMPENSATION AND ENHANCEMENT MEASURES

Ecological receptor	Further survey and/or mitigation measures	Enhancement measures	Mechanism for securing delivery
Statutory and non-statutory designated sites	None	N/A	N/A
Plants and habitats	None	Native tree, hedgerow and mixed scrub planting	Planning condition
Breeding birds	None	New tree, scrub and hedgerow planting	Planning condition
Bats	None	2-3x bat boxes on trees	Planning condition
Other mammals	Reasonable avoidance methods for hedgehog & other mammals Use of hedgehog-friendly fencing	None	Planning condition
Reptiles	None	None	N/A
Great crested newt	Reasonable avoidance methods for great crested newts	None	Planning condition
Invertebrates	None	None	N/A

7.2. BNG

7.2.1. The baseline (pre-development) value of land within the redline boundary has been calculated, using the statutory biodiversity metric, as having a value of 3.35 habitat units and 1.43 hedgerow units.

7.2.2. The planting of a minimum of 27 native trees, along with native mixed scrub and native species-rich hedgerow planting, would result in a 10.22% net gain in the habitat units (+0.34 habitat units) and a 42.24% net gain in hedgerow units (+0.60 hedgerow units), thereby satisfying the trading rules and exceeding the mandatory minimum 10% net gain.

References

Baker, J., Hoskin, R. and Butterworth, T. (2019). Biodiversity net gain. Good practice principles for development. Part A: A practical guide. CIRIA, Griffin Court, 15 Long Lane, London, EC1A 9PN.

CIEEM (2021). Biodiversity Net Gain Report and Audit Templates. Chartered Institute of Ecology and Environmental Management, Winchester, UK.

CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017). Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Cresswell, W. & Whitworth, R. (2004). An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newts *Triturus cristatus*. English Nature Research Report Number 576. English Nature, Northminster House, Peterborough, PE1 1UA.

Defra (2024). The Statutory Biodiversity Metric. User Guide. February 2024. Department for Environment Food & Rural Affairs (available at https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides).

HM Government (2018). A Green Future: Our 25 Year Plan to Improve the Environment (available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf).

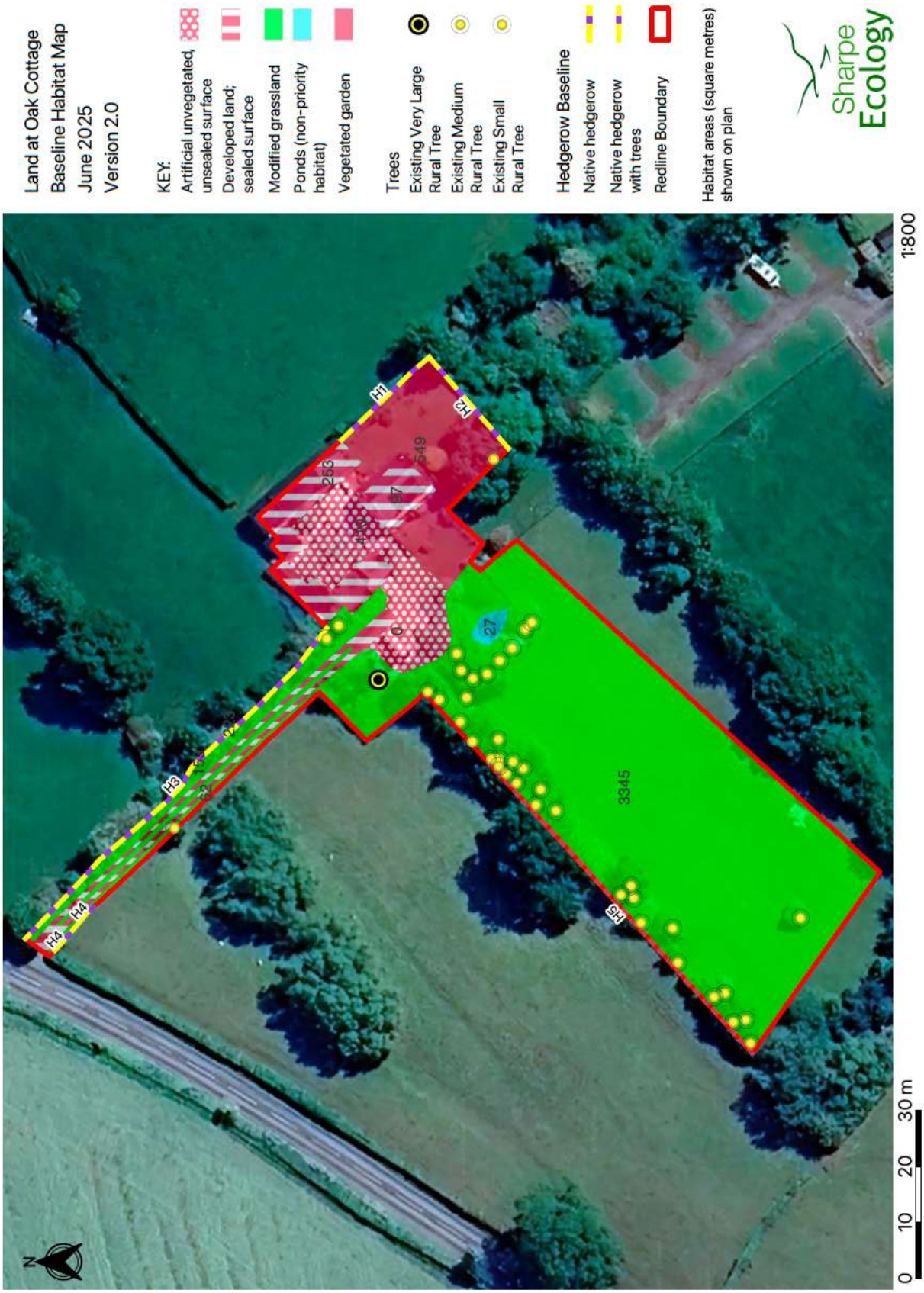
JNCC (2010). Handbook for Phase 1 habitat survey: A technique for environmental audit. Joint Nature Conservation Committee, Peterborough, UK.

Stone, E.L. (2013). Bats and lighting: Overview of current evidence and mitigation guidance. University of Bristol.

UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org).

Appendix A Baseline habitat map and site photos

A.1 Baseline habitat map



A.2 Site photos

Photo 1. Hedgerows H1 & H2 in rear garden

Photo 2. Rear garden & buildings

Photo 3. Front garden

Photo 4. Building & gravel

Photo 5. Gravel car parking/turning area

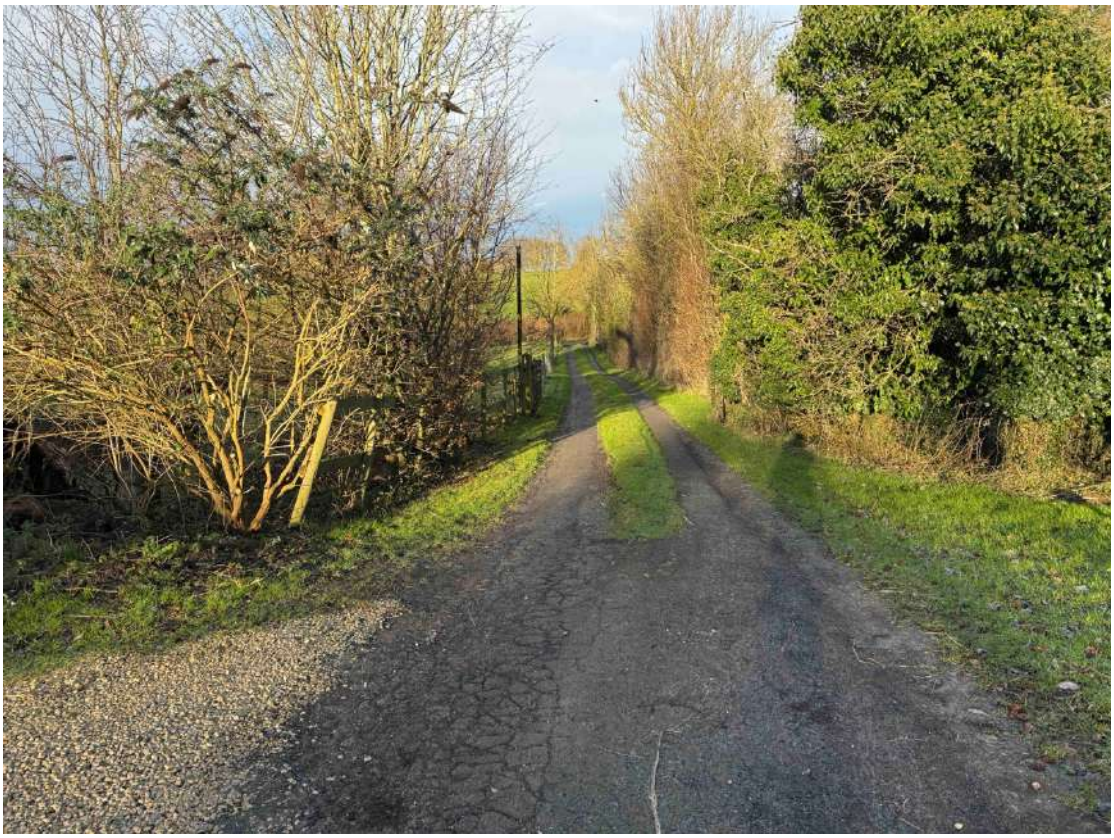


Photo 6. Access track and hedgerow H3

Photo 7. Grassland & pond, looking southeast

Photo 8. Pond

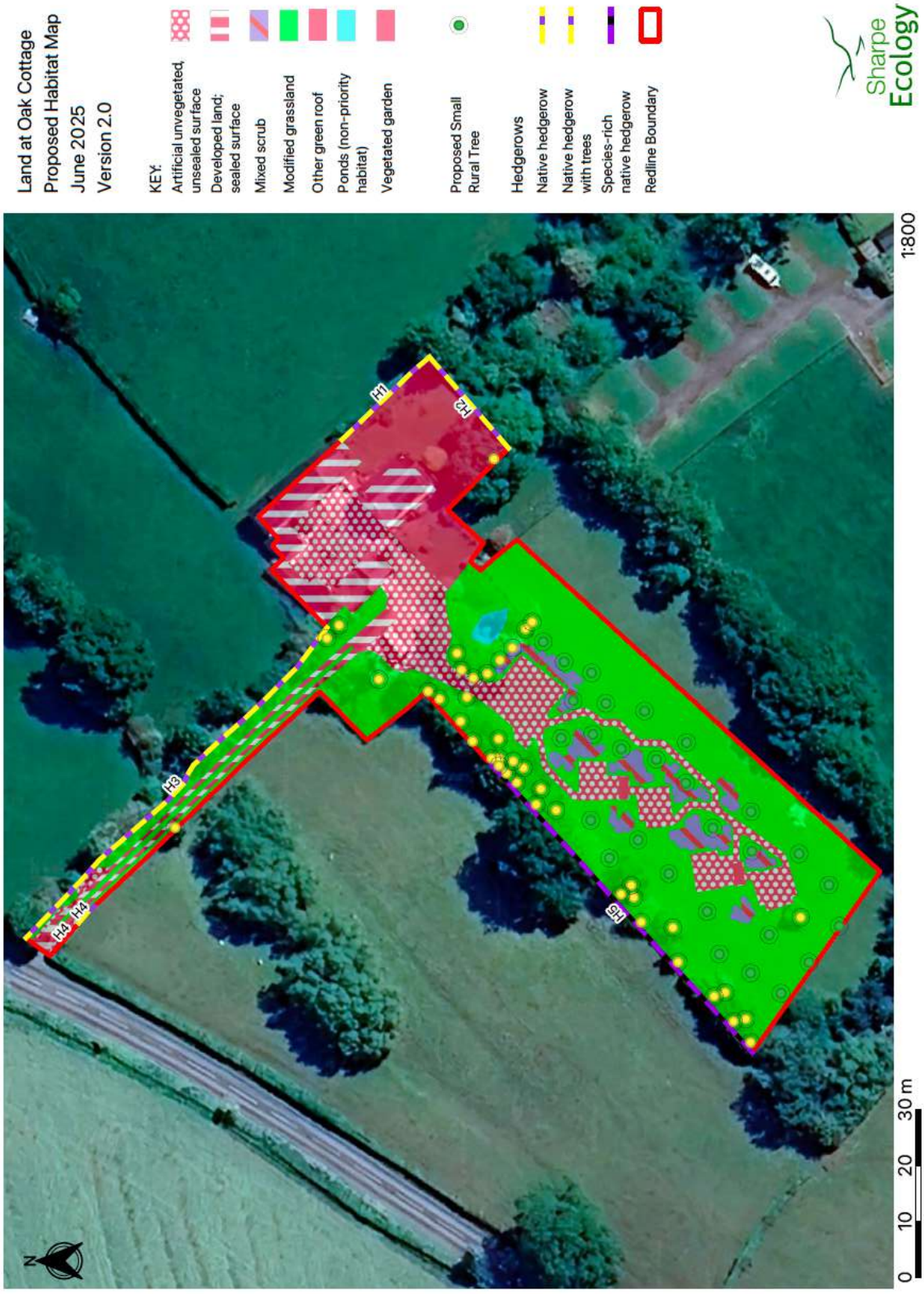
Photo 9. Pond

Photo 10. Grassland, looking north

Photo 11. Grassland, looking northwest

Photo 12. South end of grass field with adjacent woodland copse

Appendix B Proposed site layout



Appendix C Condition assessment sheet

Modified grassland

Condition Sheet: GRASSLAND Habitat Type (low distinctiveness)			
UK Habitat Classification (UKHab) Habitat Type			
Grassland - Modified grassland			
On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference	SO662552	**Habitat parcel reference**	Modified grassland
Habitat Description			

ukhab – UK Habitat Classification

	Condition Assessment Criteria	Criterion passed (Yes or No)	Notes (such as justification)
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs (these may include those listed in Footnote 1). **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	No	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	No	
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	Yes	
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	Yes	
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens)[2].	Yes	
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	Yes	
G	There is an absence of invasive non-native plant species[3] (as listed on Schedule 9 of WCA[4]).	Yes	
		Essential criterion achieved (Yes or No)	No
		Number of criteria passed	5

Condition Assessment Result (out of 7 criteria)	Condition Assessment Score	Score Achieved ✓/✓
Passes 6 or 7 criteria including passing essential criterion A	Good (3)	
Passes 4 or 5 criteria including passing essential criterion A	Moderate (2)	
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor (1)	X

Pond

Condition Sheet: POND Habitat Type			
Habitat Type			
Lakes - Ponds (priority habitat) **Lakes - Ponds (non-priority habitat)** **Lakes - Temporary lakes ponds and pools (H3170)** [Use this condition sheet for Temporary ponds and pools, use Lake condition sheet for Temporary lakes] **Lakes - Ornamental lake or pond** [Use this condition sheet for Ornamental ponds, use Lake condition sheet for Ornamental lakes]			
Habitat Description			
A small garden pond located along the northeast edge of the field (separated from the main field by a wire fence and line of coppiced trees. The pond area was 27m2, and the pond was contained aquatic and emergent vegetation (including water lily Nymphaea sp., flag iris Iris sp., and hornwort Ceratophyllum sp), which covered approximately 30% of the surface. The pond was surrounded by a mix of sedges, mown grass and shrub planting, and was 30-40% shaded by nearby trees			
ukhab – UK Habitat Classification			
On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Grid reference	SO 66304 55276	**Habitat parcel reference**	Pond

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
Core Criteria - applicable to all ponds (woodland[1] and non-woodland):			
A	The pond is of good water quality, with clear water (low turbidity) indicating no obvious signs of pollution. Turbidity is acceptable if the pond is grazed by livestock.	Yes	
B	There is semi-natural habitat (moderate distinctiveness or above) completely surrounding the pond, for at least 10 m from the pond edge for its entire perimeter.	No	
C	Less than 10% of the water surface is covered with duckweed *Lemna* spp. or filamentous algae.	Yes	
D	The pond is not artificially connected to other waterbodies, such as agricultural ditches or artificial pipework.	Yes	
E	Pond water levels can fluctuate naturally throughout the year. No obvious artificial dams[2], pumps or pipework.	Yes	
F	There is an absence of listed non-native plant and animal species[3].	Yes	
G	The pond is not artificially stocked with fish. If the pond naturally contains fish, it is a native fish assemblage at low densities.	No	
Additional Criteria - must be assessed for all non-woodland ponds:			
H	Emergent, submerged or floating plants (excluding duckweed)[4] cover at least 50% of the pond area which is less than 3 m deep.	No	
I	The pond surface is no more than 50% shaded by adjacent trees and scrub.	Yes	
	Number of criteria passed	6	

Condition Assessment Result	**Condition Assessment Score**	**Score Achieved x/✓**
Results for woodland ponds which require assessment of 7 core criteria		
Passes 7 criteria	Good (3)	
Passes 5 or 6 criteria	Moderate (2)	
Passes 4 or fewer criteria	Poor (1)	
Results for non-woodland ponds which require assessment of 9 criteria		
Passes 9 criteria	Good (3)	
Passes 6 to 8 criteria	Moderate (2)	X
Passes 5 or fewer criteria	Poor (1)	

Hedgerows

Condition sheet: HEDGEROW Habitat Types			
Habitat Type			
Native hedgerow **Native hedgerow - associated with bank or ditch** **Native hedgerow with trees** **Native hedgerow with trees - associated with bank or ditch** **Species-rich native hedgerow** **Species-rich native hedgerow - associated with bank or ditch** **Species-rich native hedgerow with trees** **Species-rich native hedgerow with trees - associated with bank or ditch**			
Habitat Description			
4.2.10.H1 was a managed hawthorn Crataegus monogyna hedgerow with occasional hazel Corylus avellana, garden privet Ligustrum ovalifolium, holly Ilex aquifolium, ash Fraxinus excelsior, ivy Hedera helix and bramble Rubus fruticosus. H2 was a short section of hawthorn hedgerow which divided the garden from the adjacent orchard. H3 was tall hedgerow, which contained occasional small and medium sized trees. The hedgerow consisted of hawthorn, hazel, ash, holly, along with ivy and dog rose Rosa canina. H4 was a well-managed hawthorn hedge			
ukhab – UK Habitat Classification			
On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
Limitations (if applicable)		**Survey reference (if relating to a wider survey)**	
Condition Assessment Details			
A series of ten attributes, representing key physical characteristics are used for this assessment. Each attribute is assigned to one of five functional groups (A – E) and the condition of a hedgerow is assessed according to the number of attributes from these functional groups which pass or fail the 'favourable condition' criteria. This assessment is based on the Hedgerow Survey Handbook[1] and Favourable Conservation Status document[2]. For further clarification please refer to the Hedgerow Survey Handbook. Best practice would be to record the species, age, spacing and other key information about all trees present along a hedgerow within the 'Habitat Description' box, as well as other key features of the hedgerow.			

Hedgerow favourable condition attributes														
Attributes and functional groupings (A, B, C, D and E)		**Criteria - the minimum requirements for 'favourable condition'**	**Criteria description**	**Habitat parcel reference**										
				H1	H2	H3	H4							
				Grid reference										
				SO 66344 55297	SO 66347 55282	SO 66272 55338	SO662 49 55353							
Core groups - applicable to all hedgerow types				**Criterion passed (Yes or No)**										**Notes (such as justification)**
A1.	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	y	y	y	n							
A2.	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	y	y	y	n							
B1.	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	n	y	y	y							
B2.	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5 m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	y	y	y	y							

C1.	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow, and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	y	y	y	y							
C2.	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	y	y	y	y							
D1.	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	y	y	y	y							
D2.	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	y	y	y	y							
Additional group - applicable to hedgerows with trees only														
E1.	Tree class	There is more than one age-class (or morphology) of tree present (for example: young, mature, veteran and or ancient[8]), and there is on average at least one mature, ancient or veteran tree present per 20 - 50m of hedgerow.	This criterion addresses if there are a range of age-classes or morphologies which allow for replacement of trees and provide opportunities for different species.			n								
E2.	Tree health	At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity.	This criterion identifies if the trees are subject to damage which compromises the survival and health of the individual specimens.			y								

The hedgerow condition assessment generates a weighting (score) ranging from 1 - 3, which is used within the Statutory Biodiversity Metric. The scores for each are set out in the tables below.

Condition categories for hedgerows without trees		
Category	**Category Requirements**	**Metric Score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 4 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and C2 = Moderate condition).	2
Poor	Fails a total of more than 4 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	3

Condition categories for hedgerows with trees		
Category	**Category Requirements**	**Metric score**
Good	No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	3
Moderate	No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	2
Poor	Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	1
	Score achieved:	3

Individual trees

Condition Sheet: INDIVIDUAL TREES Habitat Type											
Habitat Types											
Individual trees – Urban trees **Individual trees – Rural trees** Complete a condition sheet for each tree or block of trees. ***Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.***											
Habitat Description											
Individual rural trees											
Individual trees (description applied to the urban or rural environment): Young trees over 7.5 cm in diameter at breast height whose canopies are not touching. **Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):** Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.											
On-site or off-site, site name and location	onsite	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM								
		Survey reference (if relating to a wider survey)									
Limitations (if applicable)		**Habitat parcel reference**	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10	
		Grid reference	SO66 255521	SO66 225522	SO66 235522	SO662 35523	SO66 235523	SO66 235523	SO66 245524	SO662 55524	SO66 255524	SO662 55524	
Condition Assessment Criteria			**Criterion passed (Yes or No)**										**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).		Y	Y	Y	Y	N	N	Y	Y	Y	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C	The tree is mature (or more than 50% within the block are mature)[1].		N	N	N	N	N	N	N	N	N	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.		N	N	N	N	N	N	N	N	N	N	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
		Number of criteria passed	4	4	4	4	3	3	4	4	4	4	
Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ✗/✓**											
Passes 5 or 6 criteria	Good (3)												
Passes 3 or 4 criteria	Moderate (2)		X	X	X	X	X	X	X	X	X	X	
Passes 2 or fewer criteria	Poor (1)												
Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.													

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees

Individual trees – Rural trees

Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual rural trees

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
		Survey reference (if relating to a wider survey)	

Limitations (if applicable)		**Habitat parcel reference**									
		T11	T12	T13	T14	T15	T16	T17	T18	T19	T20
		Grid reference									
Condition Assessment Criteria		SO66 25552 4	SO66 25552 5	SO66 27552 6	SO662 75526	SO66 27552 6	SO66 27552 6	SO66 27552 7	SO662 75527	SO66 27552 7	SO662 85527
		Criterion passed (Yes or No)									**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C	The tree is mature (or more than 50% within the block are mature)[1].	N	N	N	N	N	N	N	N	N	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	N	N	N	N	N	N	N	N	N	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Number of criteria passed	4	4	4	4	4	4	4	4	4	4	

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ✗/✓**									
Passes 5 or 6 criteria	Good (3)										
Passes 3 or 4 criteria	Moderate (2)	X	X	X	X	X	X	X	X	X	X
Passes 2 or fewer criteria	Poor (1)										

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual rural trees

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
		Survey reference (if relating to a wider survey)	

Limitations (if applicable)		**Habitat parcel reference**									
		T21	T22	T23	T24	T25	T26	T27	T28	T29	T30
		Grid reference									
Condition Assessment Criteria		SO66 28552 7	SO66 27552 7	SO66 28552 7	SO662 85527	SO66 28552 8	SO66 29552 8	SO66 29552 7	SO662 95528	SO66 29552 7	SO662 95528
		Criterion passed (Yes or No)									**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	Y	Y	N	Y	Y	N	Y	Y	Y	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C	The tree is mature (or more than 50% within the block are mature)[1].	N	N	N	N	N	N	N	N	N	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	N	N	N	N	N	N	N	N	N	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Number of criteria passed	4	4	3	4	4	3	4	4	4	4	

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ✗/✓**									
Passes 5 or 6 criteria	Good (3)										
Passes 3 or 4 criteria	Moderate (2)	X	X	X	X	X	X	X	X	X	X
Passes 2 or fewer criteria	Poor (1)										

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual rural trees

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
		Survey reference (if relating to a wider survey)	

Limitations (if applicable)		**Habitat parcel reference**									
		T31	T32	T33	T34	T35	T36	T37	T38	T39	T40
		Grid reference									
Condition Assessment Criteria		SO66 29552 8	SO66 29552 8	SO66 29552 7	SO662 95527	SO66 30552 7	SO66 30552 6	SO66 30552 6	SO663 05530	SO66 30553 0	SO662 65533
		Criterion passed (Yes or No)									**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
C	The tree is mature (or more than 50% within the block are mature)[1].	N	Y	N	N	N	N	N	N	N	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	N	Y	N	N	N	N	N	N	Y	N	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	Number of criteria passed	4	6	4	4	4	4	4	4	5	4	

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ✗/✓**									
Passes 5 or 6 criteria	Good (3)		X							X	
Passes 3 or 4 criteria	Moderate (2)	X		X	X	X	X	X	X		X
Passes 2 or fewer criteria	Poor (1)										

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Condition Sheet: INDIVIDUAL TREES Habitat Type

Habitat Types

Individual trees – Urban trees
Individual trees – Rural trees
Complete a condition sheet for each tree or block of trees.

Please see the separate Line of trees condition sheet for a line of rural trees. You should only use the Line of trees condition assessment and record that habitat type in rural locations.

Habitat Description

Individual rural trees

Individual trees (description applied to the urban or rural environment):
Young trees over 7.5 cm in diameter at breast height whose canopies are not touching.

Urban Perimeter / Linear Blocks and Groups (description applied to the urban environment only):
Groups or stands of trees (size requirement as defined above) within and around the perimeter of urban land. This includes those along urban streets, highways, railways and canals, and also former field boundary trees incorporated into developments. Canopies should predominantly overlap continuously. Groups of urban trees that don't match the descriptions for woodland may be assessed within this category.

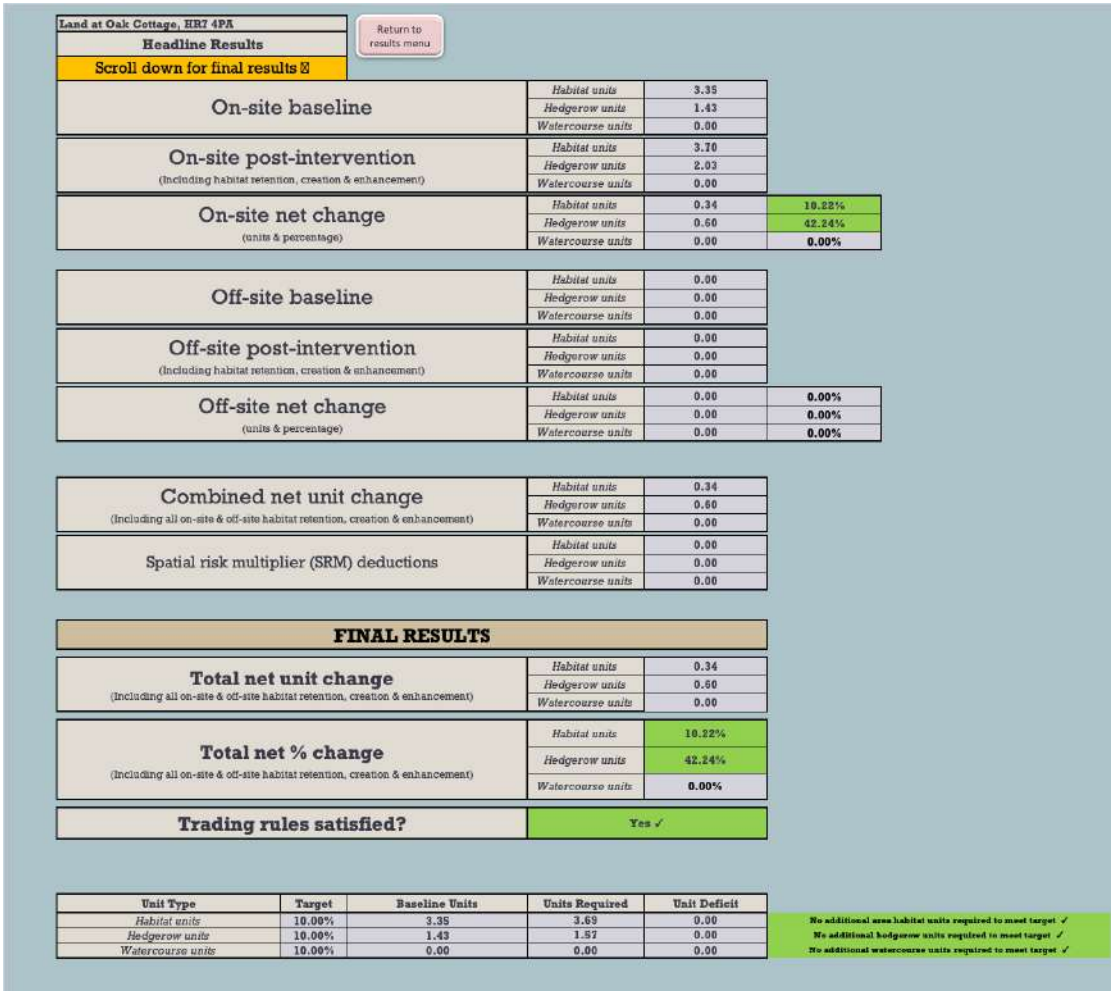
On-site or off-site, site name and location	On site	**Survey date and Surveyor name**	7th January 2025, Dr Fiona Sharpe MCIEEM
		Survey reference (if relating to a wider survey)	
Limitations (if applicable)		**Habitat parcel reference**	T41
		Grid reference	SO66 33552 7

	Condition Assessment Criteria	**Criterion passed (Yes or No)**	**Notes (such as justification)**
A	The tree is a native species (or at least 70% within the block are native species).	Y	
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	Y	
C	The tree is mature (or more than 50% within the block are mature)[1].	N	
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	Y	
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	Y	
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	Y	
	Number of criteria passed	5	

Condition Assessment Result (out of 6 criteria)	**Condition Assessment Score**	**Score Achieved ✗/✓**
Passes 5 or 6 criteria	Good (3)	X
Passes 3 or 4 criteria	Moderate (2)	
Passes 2 or fewer criteria	Poor (1)	

Note that 'Fairly Good and Fairly Poor' condition categories are not available for this broad habitat type.

Appendix D Headline summary of metric



Land at Oak Cottage, HR7 4PA

Headline Results

Scroll down for final results

Return to results menu

On-site baseline	Habitat units	3.35	
	Hedgerow units	1.43	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	3.70	
	Hedgerow units	2.03	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	0.34	10.22%
	Hedgerow units	0.60	42.24%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.34	
	Hedgerow units	0.60	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	0.34
	Hedgerow units	0.60
	Watercourse units	0.00
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	10.22%
	Hedgerow units	42.24%
	Watercourse units	0.00%
Trading rules satisfied?	Yes ✓	

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	3.35	3.69	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	1.43	1.57	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓