

Biodiversity Net Gain Assessment Long Meadow Farm, Wokingham

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Client: Simon Beech

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Executive Summary

Contents	Summary
Site Location	The site is situated at Long Meadow Farm, Wokingham.
Proposal	The current proposed plans are to add a permanent fenced off area as a dog exercise/walking/training area. There will also be a portable shed to provide shelter and tea/coffee making facilities. Within the fenced off area will be obstacles within the fence area for dogs to play with.
Scope of Survey	The aim of this BNG assessment is to: • Quantify the pre-development baseline habitat units; • Quantify the post-development habitat units on site; and • Calculate the likely change in biodiversity units for habitat units from pre-to post-development to provide an indication of the biodiversity losses / gains that may occur should the proposed development proceed.
Results and Evaluation	The baseline habitat units for the site are valued at 2.28. With on-site enhancement, the proposed development will result in a post-intervention value of 5.86 habitat units, resulting in a net change of +0.58 habitat units, a 11.04% increase. This meets the requirement of minimum 10% biodiversity net gain as per the local and national planning policy, and the scheme also satisfies the Metric's trading rules.
Recommendations	The proposed works on site currently meet the minimum 10% net gain for habitat units and meets the Metric's trading rules, therefore meeting the requirements of current local and national planning policy. To secure these biodiversity net gains on site habitat enhancement is still required. To enhance habitat on site to the required condition for at least 30 years as per the Environment Act 2021, a conditioned Habitat Management and Monitoring Plan (HMMP) will be produced. A HMMP will detail the habitat management required to meet the habitat conditions detailed in this report for a period of 30 years. This should also include maintenance of significant enhancements which must be secured with a legal agreement (planning condition, planning obligation or conservation covenant).

1. Introduction

1.1 Background

Echological Ltd (Echological) was commissioned by Simon Beech to undertake a Biodiversity Net Gain (BNG) Assessment of Long Meadow Farm, Wokingham, hereafter referred to as “the site”.

This report has been prepared by Principal Ecologist Dave Byett MSc BSc (Hons) MCIEEM and the conditions pertinent to it are included within Appendix A.

1.2 Site Description

The site is located in Wokingham and is centred at British Grid Reference SU 78924 66781. The site is comprised of a farm house, modern barn and dominated by pasture, with a pond and a small brook flowing east to west along the south of the site. The wider landscape of the site is predominantly a mixture of pasture and arable fields with tree lines and hedges, with some woods. Then further from site the area is nearly encapsulated by residential areas to the north, east and south of the site. See Figure 1 for site boundary and the Extended Ownership (EO).

1.3 Development Proposals

The current proposed plans are to install a dog walking/training/play facility as well as a temporary shed for dog walkers to make a tea/coffee and shelter from weather. There will also be temporary obstacles within the walking area for dogs to play with.

1.4 Purpose of Report

The purpose of this report is to:

- Quantify the pre-development baseline habitat and hedgerow biodiversity and linear units present on site.
- Quantify the post-development habitat, hedgerow biodiversity and linear units on site which will be retained, reinstated or created under the proposed landscape mitigation plan.
- Calculate the likely change in biodiversity units from pre- to post-development to determine whether the proposed development will result in a net loss, no net loss or a net gain for biodiversity, with a focus on Habitats of Principal Importance (HPI), as defined under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, and within the UK Habitat classification guidance (UKHab Ltd, 2023).

Scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

1.4.1 Validity

As the initial survey was completed on 23/03/2025, under the guidance published by CIEEM¹, the details of the report are considered to remain valid for a period of eighteen months from the date of the survey (to 23/11/2026). Following this timeframe the validity of this assessment should be reviewed to determine whether further updates are necessary.

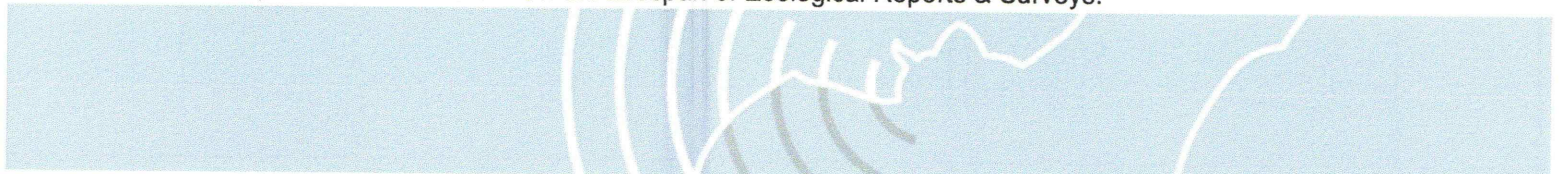
1.5 Legislation

In order to adhere to national and local planning policy, developments should strive to protect and enhance natural resources where possible. This policy is further strengthened within the Environment Act 2021, which makes it a legal requirement to demonstrate a gain in the biodiversity value attributable to the development of a minimum of 10% on site.

This document does not include details relating, legislative context, mitigation and enhancement recommendations, outside the remit of BNG.

The BNG Assessment is required to meet Local and National Environment and Planning Policy with regards to biodiversity and development (Appendix B).

¹ CIEEM, 2019. Advice Note – On the Lifespan of Ecological Reports & Surveys.



2. Methodology

2.1 Statutory Biodiversity Guidance

The assessment has been made using Defra's Statutory Biodiversity Metric (Defra, 2024c) (referred to hereafter as 'the Metric') in conjunction with the User Guide (Defra, 2024a) and Biodiversity Net Gain: Good Practice Principles for Development (Baker, Hoskin, & Butterworth, 2019). This comprises the following steps, described in Section 2.2, with detailed methodology provided in Appendix C.

2.2 Habitat Assessment

An extended Habitat Classification Survey and Condition Assessment was undertaken on the 23/03/2025 by Principal Ecologist Dave Byett, MSc, BSc (Hons), MCIEEM in optimal weather conditions (no rain, temperature 13°C, wind light air, full cloud cover).

2.2.1 Habitat

Pre-development

The pre-development habitats were mapped and had an extended Habitat Classification Survey and Condition Assessment. The habitats present on site were mapped in accordance with the UK Habitat Classification Professional Edition V2 (UKHab Ltd, 2023), hereafter referred to as 'UKHab'. The pre-development habitats are shown in Figure 2. The area of identified habitats are calculated in square meters (m²), ignoring linear features such as hedgerows or ditches (the area should be measured to the centre line of such features). The length of linear features is measured separately in meters (m).

The habitats were converted into the Statutory Biodiversity Metric (Defra, 2024c), from the UKHab classification (UKHab Ltd, 2023). Further detail of habitat descriptions with target notes (TN) can be found in the associated Preliminary Ecological Appraisal (PEA) undertaken for this project (Echological Ltd, 2025), which should be read in conjunction with this document.

Post-Development

Each of the post-development habitats (as set out on the Post-Development Plan, Figure 3) have been inferred from informative drawings of site placement. Due to the scale of the development and simplicity of habitat creation within the site, the information provided was considered adequate to estimate change in habitat units.

Post-development habitats were based on enhanced habitat. These habitats were assigned a UKHab category which was considered to best represent the habitat present post-development, this was then converted to a BNG Metric category. See Figure 3 for the post-development habitats.

2.2.2 Habitat Distinctiveness

Each habitat is assigned a score for distinctiveness. Distinctiveness includes parameters such as species richness, diversity, rarity (at local, regional, national and international scales) and the degree to which a habitat supports species rarely found in other habitats (Defra, 2024a).

2.2.3 Habitat Condition

The condition of each habitat is assessed using the methods set out in the Statutory Biodiversity Metric -The Statutory Biodiversity Metric -Technical Annex 1: Condition Assessment Sheets and Methodology November 2023 (Defra, 2024b). The site condition assessments can be found in Appendix D

2.2.4 Strategic Significance

The strategic significance of a site within the Statutory Biodiversity Metric is based upon several factors such as but not limited to:

- If the site is identified within a Local Nature Recovery Strategy (LNRS) area.
- If an LNRS has not yet been published and the site is identified within a local planning policy as a biodiversity and nature or green infrastructure improvement areas.

The responsible authority for LNRS where the site is located is West Berkshire Council (though not available at time of writing).



The local planning authority is Wokingham Council. The Wokingham Borough Council Local Development Scheme² was formally adopted 2021 with DPN1: Biodiversity, Geodiversity and Nature Recovery stating the view of how to safeguard the environment and enhance it.

2.2.5 Risk Factors

As part of any proposed habitat creation and enhancement, risk factors must be considered to correct for disparity, delay or risk; these are:

- Time to target condition;
- Difficulty of restoration / creation; and
- If habitat created is undertaken in advance or delayed prior to the development.

2.2.6 Offsite Spatial Risk Multiplier

If using offsite land for biodiversity offsetting, an offsite spatial risk multiplier is used to factor in distances from the development site, with a negative multiplier applied to the units based on distance from the site.

2.3 Limitations

The best possible effort was made during the mapping process to ensure that all habitats identified on site were mapped accurately and represent the area of habitats present on site. Some margin of error is possible due to the difficulty defining the continuous nature of habitat boundaries. However, this margin of error has been minimised as far as practically possible using the professional opinion, desk-based information and up to date aerial imagery.

The assessment of habitats pre and post-development required conversion from UKHab habitat categories into the Metric categories. This information is then inputted into the Metric in terms of the habitat areas being retained, lost or enhanced. Whilst not a significant limitation, when using the Metric calculation tool to convert the UKHab types into Metric categories, the different habitat types do not exactly align. Therefore, some habitats were included within a more general habitat category under UKHab to allow the calculation tool to be applied, this also applies to the post development landscape plan used for the site.

Note that scores for any habitats, hedgerows and rivers are reported separately and therefore should not be summed or averaged to produce a final overall biodiversity value for the site.

The outputs of the Metric are not absolute values but provide a proxy for the relative biodiversity worth of a site pre and post-development. The calculations within this report should be reviewed and updated should there be any changes to the habitats on site pre-development. As the change in biodiversity units is determined by subtracting the number of pre-intervention biodiversity units (i.e. those originally existing on-site and off-site) from the number of post-intervention units (i.e. those projected to be provided), this report should be updated should the proposals for the site change.

The Metric does not override or undermine any existing planning policy or legislation, including the mitigation hierarchy, which should always be considered as the Metric is applied. Furthermore, the Metric does not change the protection afforded to biodiversity. Existing levels of protection afforded to protected species (such as for bats) and to habitats, are not changed by use of this or any other Metric.

The optimal time period to complete condition assessments is between April and September, this survey of the site was completed outside of this window in March 2025. This though is not considered a limitation of the assessment due to habitats on site being common and widespread, and the dominant species of the respective vegetation types were visible and identifiable.

² <https://www.wokingham.gov.uk/sites/wokingham/files/2024-09/WBC%20Local%20Development%20Scheme%202024%20Final.pdf>



3. Results

3.1 Pre-development Baseline Units

The baseline conditions assessments for habitats units are provided in more detail in Appendix D.

The habitats present on site are shown in Table 1 and Figure 3, alongside their distinctiveness and condition categories, with the total area of the habitats onsite (0.92ha) and the associated baseline biodiversity units equalling 5.28units.

3.2 Irreplaceable Habitats

Within the baseline habitat surveys, no irreplaceable habitats have been recorded on site, therefore no bespoke mitigation for irreplaceable habitats is proposed.



Table 1: Pre-Development Habitat Baseline Units

Habitat Type	Ref.	Irreplaceable Habitat (Y/N)	Area (ha)	Area Retained (ha)	Area Enhanced	Area Lost (ha)	Distinctiveness	Condition	Strategic Significance	Total Habitat Units
Modified grassland	H1	N	0.7966	0.7966	0.00	0.00	Low	Good	Area/compensation not in local strategy/ no local strategy	4.78
Modified grassland	H2	N	0.1242	0.00	0.1242	0.00	Low	Moderate	Area/compensation not in local strategy/ no local strategy	0.50
Total area (including trees)			0.92		Total units (including trees)					
Total area (excluding trees)			0.92							
					5.28					



3.3 Post-Development Units

Post-development habitats have been split depending on whether they are to be retained or enhanced. On this basis, the post-development habitats value is calculated to be 1.08 habitat units.

The habitats enhanced as part of the development are provided in Table 2 and shown in Figure 3. Further details regarding retention and enhancement proposals are outlined below.

3.3.1 Retention

All the modified grassland (H1) within the site boundary will be retained and managed the same.

3.3.2 On-site Enhancement

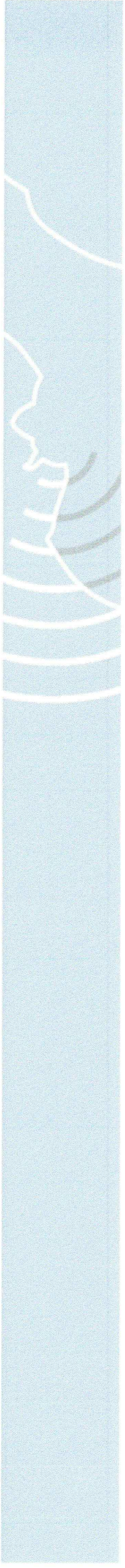
In addition to the above, grassland enhancement is proposed within the EO. This is proposed to include 0.1242ha of currently managed modified grassland which will be enhanced to a wildflower rich other neutral grassland. The described on-site enhancements equate to a total of 1.08units.

The proposed management regime for the enhanced habitats to reach their target condition in the specified timeframe is provided within Appendix E. These on-site features will require a 30-year Habitat Monitoring and Management Plan (HMMP) (to be agreed and conditioned by the LPA).



Table 2: On-Site Habitat Units - Enhanced

Habitat Type	Habitat Measure	Area (ha)	Distinctiveness	Condition	Strategic Significance	Total Habitat Units
Other neutral grassland	Enhanced (from modified grassland)	0.1242	Medium (<i>from low</i>)	Good	Area/compensation not in local strategy/ no local strategy	1.08
Total units: 1.08						



3.4 Headline Results

Headline habitat results are provided in Table 3. This shows that with the implementation of the habitats within the Post-Development Habitat Plan (Figure 3) and enhancement and achievement of the conditions as set out in Appendix E, the development proposals would likely result in a net gain of approximately 0.58 habitat units +10.05%.

Table 3: Headline Results

Project Stage	Habitat Type	Units
On-site baseline	Habitat units	5.28
On-site post-intervention	Habitat units	5.86
On-site total net unit change	Habitat units	0.58
Combined net unit change	Habitat units	0.58
Spatial risk multiplier (SRM) deductions	Habitat units	0
Total net unit change	Habitat units	0.58
Total percentage change	Habitat units	11.04%
Trading rules met?		YES

3.4.1 Trading Rules

The trading rules set minimum habitat creation and enhancement requirements to compensate for specific habitat losses, up to the point of no net loss. They are based on the habitat type and distinctiveness of the lost habitat. As per Rule 1 of the Statutory Biodiversity Metric (Defra, 2024a) "The trading rules of this biodiversity metric must be followed" and "if trading rules have not been satisfied, then a net gain in biodiversity cannot be claimed". The trading rules for habitats in this scenario are met.



4. Discussion

4.1 Significant On-site and Off-site Enhancements

Significant on-site enhancements are defined as areas of habitat enhancement which contribute significantly to the proposed development's biodiversity net gain relative to the biodiversity value before development. Retention of existing habitat does not count as an on-site enhancement. Below are listed the significant on-site enhancements proposed for the site.

Significant on-site enhancement include:

- Enhancement of modified grassland (low distinctiveness habitat) to other neutral grassland (medium distinctiveness habitat).

The maintenance of these significant enhancements must be secured with a legal agreement (planning condition, planning obligation or conservation covenant) for 30 years, plus a HMMP. LPAs will consider the most appropriate mechanism, and this will be agreed at the Planning Permission stage.

4.2 Trading Rules

The trading rules are met due to all habitats on site proposed to be retained like for like, or like for better distinctiveness of habitat, therefore no further design changes to the post-development or on-site enhancement layouts are required to meet the trading rules.

4.3 Best Practice Principles

As per the Biodiversity Net Gain: Good Practice Principles for Development (Baker, Hoskin, & Butterworth, Biodiversity Net Gain. Good practice principles for development: A practical guide, 2019) and BS 8683 – “Process for designing and implementing Biodiversity Net Gain” (British Standards Institute, 2021), the proposed development has been designed in accordance with the following key principles:

Principle 1: Apply the mitigation hierarchy

Avoidance:

Loss of more valuable habitats on site, rural trees (medium distinctiveness habitat) have been avoided where possible via placement of the site (fence line) away from boundary fenceline and no loss of habitat on site.

Minimise:

Due to the design of the development no habitat is to be lost.

Principle 2: Avoid losing biodiversity that cannot be offset by gains elsewhere

Irreplaceable habitats are not present on site to proposed to be indirectly impacted by the proposed development, therefore this principle does not apply.

Principle 3: Be inclusive and equitable

As part of this biodiversity net gain assessment, the design team have been engaged early within the design process to achieve a net gain.

Principle 4: Address risk

As part of this biodiversity net gain assessment, the design team have been engaged to address potential risks at an early stage, this includes discussions with the off-site management team relating to what habitats can feasibly be achieved within the budget and skills available to the team.

Principle 5: Make a measurable net gain contribution

The site has achieved a measurable net gain for biodiversity, achieving a proposed 11.04% net gain in habitat units by way of on-site enhancement.

Principle 6: Achieve the best outcomes for biodiversity



The site has achieved the best outcome for biodiversity through enhancement and creation on-site habitats which will result in medium distinctiveness of suitability for that area.

Principle 7: Be additional

Following discussions with the landowners, the enhanced grassland in the EO is anticipated to include wildflowers (when selecting a seed mix) which will benefit pollinators and also add interest to the site.

Principle 8: Create a net gain legacy

The site will achieve a net gain legacy through the production of a HMMP that details the monitoring and management required to meet the conditions of the habitats as detailed within this BNG Assessment. The HMMP will be secured by a planning condition relating to the proposed development.

Principle 9: Optimise sustainability

Grass seed will be selected from UK sources, of native wildflowers.

Principle 10: Be transparent

The BNG Assessment outlines all methodologies used to achieve a net gain for this proposed development, including baseline data, how this was recorded and how biodiversity net gain has been designed into the scheme.



5. Conclusion

The current proposals achieve a net gain of 11.04 % for habitat units. As the BNG Assessment shows that the current post-development layout (including on-site enhancements) will achieve a net gain in habitat units and trading rules are met.

It is considered that this meets the current national (e.g. NPPF (National Planning Policy Framework) and Environment Act 2021) and local (e.g. Local Plan) policy relating to BNG, as set out in Appendix B.

It is recommended that a HMMP is devised for the site to cover a 30-year period, post construction, and includes management prescriptions that aim to achieve and maintain the target condition for each habitat type set out in the Metric. This should include the maintenance of enhancements on-site which must be secured with a legal agreement (planning condition, planning obligation or conservation covenant). LPAs will consider the most appropriate mechanism, and this will be agreed at the Planning Permission stage. The Statutory Biodiversity Metric condition sheets should be used to inform this HMMP.

Should there be any changes to the on-site habitats, or landscape proposals on site, these will need to be reflected within an update to this BNG assessment.



6. References

- Baker, J., Hoskin, R., & Butterworth, T. (2019). *Biodiversity Net Gain. Good practice principles for development: A practical guide.*
- British Standards Institute. (2021). *BS 8683:2021 Process for designing and implementing Biodiversity Net Gain Specification.*
- Defra. (2024a). *The Statutory Biodiversity Metric: User Guide.*
- Defra. (2024b). *The Statutory Biodiversity Metric - Technical Annex 1: Condition Assessment Sheets and Methodology.*
- Defra. (2024c). *The Statutory Biodiversity Metric Calculation Tool.*
- Echological Ltd. (2025). *Long Meadow Farm, Wokingham. Preliminary Ecological Assessment.*
- UKHab Ltd. (2023). *UK Habitat Classification Version 2.0.* Retrieved from <https://www.ukhab.org>



7. Figures

Figure 1 - Site Location Plan (011-01-A)

Figure 2 – Pre-Development Habitat Plan (011-03-A)

Figure 3 – Post-Development Habitat Plan (011-04-A)





Legend

Boundary

- Site Boundary
- Extended Ownership

Notes
1. All data is current as of 11/05/2025.
2. All data is current as of 11/05/2025.
3. All data is current as of 11/05/2025.



Client	Simon Beech		
Site	Long Meadow Farm, Wokingham		
Title	Site Location Plan		
Rev	A	Date	11/05/2025
Drawn	DB	For Issue	
Description	011-01-A		

Scale: 1:5,000
340 Meters
170
85
0

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