Brook Farm Nursery
Barkham Street
Barkham
Wokingham
RG40 4PJ

Biodiversity Net Gain Assessment

Ref.: R3103_BNG_a

Report Quality Control Information	
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1 EXECUTIVE SUMMARY

1.1.1 John Wenman Ecological Consultancy LLP was instructed by Jackie Chard to provide a Biodiversity Net Gain (BNG) Assessment for the land at Brook Farm Nursery, Barkham Street in Wokingham. The assessment was commissioned to accompany a retrospective planning application to be submitted to Wokingham Borough Council for the construction of a Nursery building and associated landscaping onsite.

1.1.2 The baseline habitats for the site are derived from a desk based study of historical mapping and adjacent habitats observed during the walkover survey undertaken by John Wenman Ecological Consultancy on the 4th December 2025. The habitats comprise: Modified grassland (g4); Bare ground (u1 510); Buildings (u1b5); Developed land (u1b), sealed surface; and Artificial unvegetated, unsealed surface (u1c).

1.1.3 The proposed habitats comprise of: Modified grassland (g4), Buildings (u1b5), Developed land, sealed surface (u1b) and Artificial unvegetated, unsealed surface (u1c).

1.1.4 The Biodiversity Metric calculation tool demonstrates that a net gain in biodiversity cannot be achieved as part of the proposed development within the site boundary. The tool gives a total onsite net change of -52.08% and a change of -0.04 in habitat units. The '*Brook Farm Nursery – Statutory Biodiversity Metric (R3103_BNG_a)*' document should be referred to separately for the full calculation. The tool demonstrates that in order to achieve a 10 % net gain there will be a deficit of 0.04 habitat units which will need to be offset by purchasing offsite units from a habitat bank.

2 INTRODUCTION

2.1 Project Background

2.1.1 John Wenman Ecological Consultancy LLP was instructed by Jackie Chard to provide a Biodiversity Net Gain (BNG) Assessment for the land at Brook Farm Nursery, Barkham Street in Wokingham.

2.1.2 The assessment was commissioned to accompany a retrospective planning application to be submitted to Wokingham Borough Council for the construction of a Nursery building and associated landscaping onsite. This report follows a walkover survey undertaken by John Wenman Ecological Consultancy on the 4th December 2025.

2.2 Site Location and Context

2.2.1 The application site is a 0.07ha plot within the wider farmhouse site at Brook Farm, located east of Barkham Street, in a semi-rural area southwest of Barkham, Berkshire (central OS grid reference: SU 78140 66672). The site, which now comprises hard standing with a nursery building, artificial grass and bare ground, before development comprised modified grassland adjacent to existing nursery buildings and play areas.

2.2.2 The site is situated on a farm set amongst stables and storage buildings, with other detached neighbouring residential properties along Barkham Street. The semi-rural setting is characterised by pastoral farmland with established hedgerows/tree-lines, the Barkham Brook (approximately 120m south), ponds and pockets of deciduous woodland.

2.3 Objectives

2.3.1 The aim of this BNG Assessment is to determine if a minimum of 10% on-site net gain in biodiversity can be achieved as part of the proposed development. The key objectives are to:

- detail the approach taken for the BNG calculation (i.e. the Statutory Biodiversity Metric);
- describe and map the baseline habitats and important ecological features on site;
- describe and map the proposed habitats based on post-development design;
- complete the biodiversity metric tool with supporting condition assessment sheets; and
- outline the implementation of the design concepts and the long-term management to deliver BNG.

2.3.2 This BNG Assessment report should be read in conjunction with the completed Statutory Biodiversity Metric calculation tool and habitat condition assessment documents.

3 POLICY BACKGROUND

3.1 National Planning Policy

3.1.1 The biodiversity duty imposed through the Environment Act 2021 states that Local Planning Authorities (LPAs) must consider what action they can take to conserve and enhance biodiversity in England.

3.1.2 The National Planning Policy Framework (NPPF), published in December 2024, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach LPAs should adopt to conserve and enhance the natural environment when determining planning applications. The selection of excerpts taken from Section 15 refer to Biodiversity Net Gain (BNG) as follows:

3.1.3 The National Planning Policy Framework (NPPF), updated in December 2024, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach LPAs should adopt to conserve and enhance the natural environment when determining planning applications. The selection of excerpts taken from Section 15 refer to Biodiversity Net Gain (BNG) as follows:

'Paragraph 187. Planning policies and decisions should contribute to and enhance the natural and local environment by: […] d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;[…]

Paragraph 192. To protect and enhance biodiversity and geodiversity, plans should: […] b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity […]

Paragraph 193. When determining planning applications, local planning authorities should apply the following principles: […] 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 […]'

3.1.4 In England, BNG became mandatory for major development from the 12th February 2024 and for minor development (small sites) from the 2nd April 2024 under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). In practice, planning permission in England is now subject to a condition to secure a minimum 10% net gain for biodiversity, unless the development is a type that is exempt from mandatory BNG requirements.

3.2 Local Planning Policy

3.2.1 The Wokingham Borough Council website states that *'Information about the existing biodiversity on site, sometimes called a baseline assessment, will need to be submitted by applicants. If planning permission is granted, a plan to create at least a 10% improvement of biodiversity, from the baseline assessment, will need to be provided. The biodiversity net gain requirement has been agreed by the Government and is additional to existing local and national policy and guidance. If permission is granted then a statutory condition, called the General Biodiversity Gain Condition, is applied – this condition cannot be changed or removed. A metric has been developed by the Government that will allow all the relevant information to be submitted. The metric tool will help work out the value of the biodiversity on the site and measure this in 'units'. This will mean the 10% increase in 'units' can be shown as part of a planning application. The metric will need to be supported with other information including whether if the increase in biodiversity will be provided on or off site and/or if there is an exceptional ecological reason to not follow the metric. Where the improvement to biodiversity is provided on the site, it is expected this will be in place for a minimum of 30 years and will be monitored over this time. The Council will likely use planning conditions or a legal agreement to make sure this is the case. The Council will also have to provide a report on the status of biodiversity net gain at least every five years. Where the improvement to biodiversity is provided off the site, a legal agreement will be required to secure this, and the improvement will need to be registered with Natural England. If it isn't possible to provide biodiversity improvement on or off the site, it will be possible to purchase 'credits' from the government.'*

4 METHODOLOGY

4.1 Baseline Information

Desk Study

4.1.1 A desktop study was conducted by Verity West – an ecologist and qualifying member of CIEEM. The study utilised data from the local environmental records centre and online resources to acquire information on the nature of the site and its surroundings and highlight any potential ecological features.

4.1.2 The Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of GCN records for land within a 1km radius of the site.

4.1.3 The DEFRA Data Services Platform was used to obtain geospatial datasets for designated sites (i.e., RAMSAR, SPA, SAC, SSSI) and habitat inventories (i.e., Priority Habitat Inventory, Ancient Woodland Inventory) to be analysed in QGIS. The Multi-Agency Geographical Information Centre (MAGIC) website was examined for granted European Protected Species (EPS) licence applications. Furthermore, open access geospatial datasets and Google Earth satellite imagery were used to determine the extent and connectivity of habitats, how the site is linked to the surrounding landscape and whether the development could have wider scale impacts on biodiversity.

4.1.4 Google Earth satellite imagery was consulted to provide insight into historic and current land use; such information helps contextualise the continuity of habitats and determine the importance of existing ecological features.

UK Habitat Classification

4.1.5 A site walkover was undertaken on 4th December 2025 by experienced ecologist Meghan Porter-Smith and assistant ecologist Lauren Hayward. The site was surveyed using the UK Habitat Classification (UKHab) system (UKHab Ltd 2023) in accordance with the CIEEM Guidelines for Preliminary Ecological Appraisal 2nd Edition (CIEEM 2017). Particular attention was given to evidence of protected and priority species (NERC Act 2006 Section 41 species of principal importance) and the site's potential to support such species. Habitat condition assessments were carried out in accordance with the Statutory Biodiversity Metric (February 2024).

Biodiversity Net Gain Approach

4.1.6 This Biodiversity Net Gain (BNG) Assessment uses the Statutory Biodiversity Metric (February 2024) to calculate the losses and gains in biodiversity unit value resulting from the proposed redevelopment. The biodiversity metric tool has been used to guide the proposed site layout and landscaping in order to deliver a minimum 10% net gain for biodiversity.

4.1.7 The biodiversity metric rules must be followed for a valid biodiversity net gain and are as follows:

*'**Rule 1**: The trading rules of this biodiversity metric must be followed.*

***Rule 2**: Biodiversity unit outputs, for each type of unit, must not be summed, traded, or converted between types. The requirement to deliver at least a 10% net gain applies to each type of unit.*

***Rule 3**: To accurately apply the biodiversity metric formula, you must use the statutory biodiversity metric calculation tool or small sites biodiversity metric tool (SSM) for small sites.*

The tools remove the need for a user to manually calculate the change in biodiversity value.

The tool will summarise the results of the calculation and inform a user whether the biodiversity net gain objective has been met.

***Rule 4**: In exceptional ecological circumstances, deviation from this biodiversity metric methodology may be permitted by the relevant planning authority.*

4.1.8 The biodiversity metric principles inform the use of the biodiversity metric tool and are as follows:

*'**Principle 1**: The metric assessment should be completed by a competent person.*

***Principle 2**: The use of this biodiversity metric does not override existing biodiversity protections, statutory obligations, policy requirements, ecological mitigation hierarchy or any other requirements. This includes consenting or licensing processes, for example woodlands.*

***Principle 3**: This biodiversity metric should be used in accordance with established*

good practice guidance and professional codes.

***Principle 4**: This biodiversity metric is not a complex or comprehensive ecological model and is not a substitute for expert ecological advice.*

***Principle 5**: Biodiversity units are a proxy for biodiversity and should be treated as relative values.*

***Principle 6**: This biodiversity metric is designed to inform decisions in conjunction with locally relevant evidence, expert input, or guidance.*

***Principle 7**: Habitat interventions need to be realistic and deliverable within a relevant project timeframe.*

***Principle 8**: Created and enhanced habitats should be, where practical and reasonable, local to any impact and deliver strategically important outcomes for nature conservation.*

***Principle 9**: This biodiversity metric does not enforce a minimum habitat size ratio for compensation of losses. Proposals should aim to:*

- *maintain habitat extent - supporting more, bigger, better and more joined up ecological networks*
- *ensure that proposed or retained habitat parcels are of sufficient size for ecological function'*

5 BASELINE INFORMATION

5.1 Desk Study

Designated Sites and Priority Habitats

5.1.1 The desk study data highlighted one internationally designated Special Protection Area (SPA), which was just over 4.5 km from the site: Thames Basin Heaths SPA. The SPA is designated for heathland habitat that supports internationally important ground nesting bird populations. The site falls within the Impact Risk Zone (IRZ) for Longmoor Bog Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR) approximately 1100 m to the south of the site. The SSSI – statutorily designated for wildlife at a national scale.

5.1.2 The application site contains no irreplaceable habitats (e.g. Ancient Semi-natural Woodland) or priority habitats (NERC Act 2006 Section 41 habitats of principle importance).

Protected and Notable Species

5.1.3 A search on MAGIC revealed 14 bat mitigation licences have been granted within a 2-kilometre radius of the application site, covering licensable works affecting six bat species : common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*), Natterer's (*Myotis nattereri*) and serotine (*Eptesicus serotinus*). The closest licence was for the destruction of a breeding roost and resting place for common pipistrelle and soprano pipistrelle bats at a property approximately 980m southeast of the site (Case ref.: 2016-24999-EPS-MIT).

5.1.4 The rural farmland area surrounding the site, with linear hedgerows, scattered trees and parcels of priority habitat deciduous woodland, provide continuous habitat that could be used as a flight-path connecting to high-quality foraging habitats for any bat(s) roosting nearby.

5.1.5 The application site falls within a 'Amber' GCN Habitat Zone – these zones contain suitable habitat – great crested newts are likely to be present. Mapping shows that there were no waterbodies present in the application site and it was considered

unlikely that the site provided habitats of high suitability for GCNs, comprising primarily of bare ground.

5.1.6 No evidence of further protected species such as badger (*Meles meles*) were observed during the walkover surveys.

5.2 Baseline Habitats Onsite

5.2.1 The baseline habitats for the site are derived from a desk based study of historical mapping and adjacent habitats observed during the walkover survey undertaken by John Wenman Ecological Consultancy on the 4th December 2025. The baseline habitats for the site comprised: Buildings (u1b5), Developed land and sealed surface (u1b), Bare ground (u1 510) and Modified grassland (g4) – refer to **Figure 1** below.

5.2.2 The site has historically always been used by the farm and adjacent dwelling. Satellite imagery shows the area largely unchanged from being part of the residential garden, with modified grassland habitat since 2003, with outbuildings for the nursery business being added from 2004. A play area on rubber chippings (u1c) and developed land including pathways and astro turf (u1b) have been added to the nursery part of the site along with additional fencing.

5.2.3 The centre of the site featured managed modified grassland in front of the nursery buildings, which is assumed from satellite images and context, to have continued into the south-western side of the site. There was an area of retained grassland with bare ground from ground works to the north-east of the site boundary. This area had species such as perennial rye grass (*Lolium perenne*), creeping bent (*Agrostis stolonifera*), common bent (*Agrostis capillaris*), clover (*Trifolium repens*), bittercress (*Cardamine hirsute*), dead nettle (*Lamium purpureum)*, buttercup (*Ranunculus sp.*), ground ivy (*Glechoma hederacea*), cleavers (*Galium aparine*), spear thistle (*Cirsium vulgare*), dandelion (*Taraxacum sp.*) and dock (*Rumex obtusifolius*).

Photograph 1. Modified grassland retained on site.

Photograph 2. Bare ground and modified grassland just off-site to the north-west.

5.2.4 There was a concrete pad present to the north of the nursery building, with an area of grassland along the edge and with some ruderal species such as bramble (*Rubus fruticosus*), cow parsley (*Anthriscus sylvestris*), hedge mustard (*Sisymbrium officinale*) and willowherb (*Epilobium sp.*).

Photograph 3. Ruderal species present in modified grassland on site.

5.2.5 The nearby adjacent retained habitats were used for assessing the habitats where possible, however if the habitat criteria were unknown then the highest condition score was assumed, and the following was noted:

- Baseline condition assessments were defined as: Modified grassland - poor.
- Urban habitats such as the developed land; sealed surface and buildings cannot be assigned a condition score.

Figure 1. Baseline Habitats Plan

5.3 Proposed Habitats Onsite

5.3.1 The post-development habitat onsite is derived from the walkover survey - refer to **Photos** below and Site Layout plan (refer to **Appendix 1**).

Photograph 4. New timber framed nursery building to the west of an existing building (u1b5).

Photograph 5. New nursery building (u1b5) surrounded by artificial grass (u1b).

Photograph 6. Artificial grass to the west of the new nursery building (u1b).

5.3.2 The proposed habitats include the following changes – refer to **Figure 2** below:

- The loss of 0.0051ha of modified grassland (g4) for the new timber framed building (u1b5); and

- The loss of 0.0124ha of modified grassland for the creation of hard standing in the form of artificial grass (u1b).

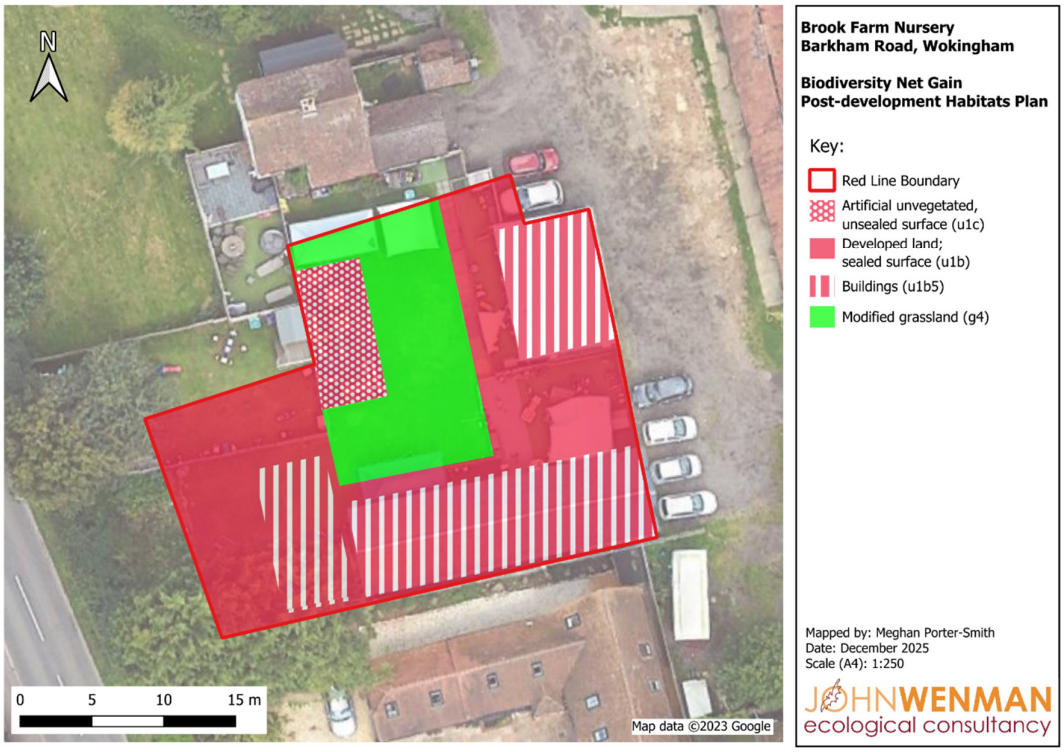

Figure 2. Post-Development Habitat Plan

5.4 Calculation Result

5.4.1 The Biodiversity Metric calculation tool demonstrates that a net gain in biodiversity cannot be achieved as part of the development within the site boundary. The tool gives a total onsite net change of -52.08% and a deficit of 0.04 habitat units – see **Figure 3** below.

Brook Farm Nursery - Eco outbuilding

Return to results menu

Headline Results

Scroll down for final results ⚠

On-site baseline	*Habitat units*	0.07		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.03		
	Hedgerow units	0.00		
	Watercourse units	0.00		
On-site net change (units & percentage)	*Habitat units*	-0.04	-52.08%	On-site net gain is less than target set ⚠
	Hedgerow units	0.00	0.00%	
	Watercourse units	0.00	0.00%	

FINAL RESULTS

Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-0.04	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	-52.08%	Total net gain achieved is less than target set ▲
	Hedgerow units	0.00%	
	Watercourse units	0.00%	
Trading rules satisfied?	No - Check Trading Summaries ▲		

Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	0.07	0.07	0.04	
Hedgerow units	10.00%	0.00	0.00	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 ✓

5.4.2 The '*Brook Farm Nursery – Statutory Biodiversity Metric (R3103_BNG_a)*' document should be referred to separately for the full calculation. The tool demonstrates that in order to achieve a 10% net gain there is a deficit of 0.04 habitat units, which will need to be offset either by purchasing offsite units e.g. from a habitat bank.

6 REFERENCES

Collins, J (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)*. The Bat Conservation Trust, London.

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

DEFRA (2024). *The Statutory Biodiversity Metric – User Guide*. DEFRA

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

Wokingham Borough Council (2024): Biodiversity net gain (BNG)

APPENDIX 1 – PROPOSED PLANS